

Running Head: FIREFIGHTER EVALUATIONS AND TEAM DEVELOPMENT

Executive Development

Firefighter Evaluations as a Tool for Team Development
and Individual Growth

By: John Q. Webb, Battalion Chief

Derry Fire Department

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Appendices Not Included. Please visit the Learning Resource Center on the Web at <http://www.lrc.dhs.gov/> to learn how to obtain this report in its entirety through Interlibrary Loan.

CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed: _____

John Q. Webb

Abstract

This paper combines the principles of Total Quality Management, with the mission statement, goals, and values of a fire department into an employee assessment process. The process relies on annual and quarterly performance assessments, common goal setting, and leadership training.

The problem is the present employee evaluations do not foster team development and individual growth. The purpose was to solve this problem using action-based research to determine: knowledge of department goals, how evaluations were done by other entities, what were effective evaluation processes, what were the elements of effective evaluations, what were the legal requirements of an employee evaluation, and can an evaluation process improve teamwork? The purpose was achieved through a literature review, a survey, focus groups, and interviews.

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Introduction

The father of Total Quality Management (TQM), W. Edwards Deming wrote that annual evaluations or management by objectives “nourishes short-term performance, annihilates long-term planning, builds fear, demolishes teamwork, nourishes rivalry and politics” (Deming, 1982, p.102). Instead of using the old standby excuses that annual evaluations are difficult to write, painful to do, time consuming, too subjective, and that we have been poorly trained to do them so why do them at all; we have an expert excuse as illustrated by Deming (1982) to stop forever the process of annual evaluations. An excuse reinforced by Allender (1994), who states under Total Quality Management (TQM), there is no need for employee evaluations instead “Employee performance improves through profound knowledge, daily motivation, good supervisory coaching, and pride in quality product” (p. 12).

Deming (1982) did not say we should stop evaluating employees but that we should replace annual evaluations with education, leadership, and principals. This exactly illustrates the concerns that have been identified at the Derry Fire Department, specifically: The problem is that the senior staff of the Derry Fire Department (DFD) believes the current annual employee evaluation process does not foster team development and individual growth.

The purpose of this applied research is to present to the Chief of the Department, a firefighter performance process that fosters team development and individual growth. To do that I will propose that we abandon our current system of employee evaluations

and instead adopt a system based on TQM that focuses on values, communication, accountability, coaching, common goal setting and training.

To achieve the stated purpose I have used action based research and the following research questions:

1. What are the goals of the Derry Fire Department, and do the employee's understand them?
2. How are employee evaluations done by other public and private entities?
3. What are the elements of an effective employee evaluation process?
4. What are the legal requirements of an employee evaluation process?
5. How can an employee evaluation process improve the teamwork of a company?

For clarity and consistency in the research questions, I use the term “employee evaluation process,” but the purpose of the research remains to develop a performance process that relies on leadership, teamwork, and communication.

Background and Significance

While conducting a focus group, I asked a senior firefighter how long he spends checking his apparatus? He replied about “thirty minutes a truck” (focus group, December 20, 2006). This senior Firefighter/Paramedic works about eighty-five, twenty-four hour, shifts a year, and therefore may spend forty or more hours performing an apparatus check. The average supervisor at the Derry Fire Department will spend about three to four hours a year on personnel evaluations (see *Results*).

Derry is the fourth largest community in New Hampshire with 36,000 residents; it is a rapidly growing, residential community, which sits on I-93, twenty minutes from Manchester and Nashua, and forty miles north of Boston. The Derry Fire Department (DFD) is an ISO 3/9 career fire department, with eighty-five members who staff four stations and responds to over 4000 calls. The DFD provides APCO-25 compliant regional fire communications to five communities and 70,000 people, while its nationally accredited, advanced life support ambulance service provides EMS to Derry, Chester, and Auburn.

According to the Town of Derry (2006) for Fiscal Year (FY) 2007, the total personnel costs of the Derry Fire Department represent 85% of the total budget – 7.81 million dollars out of a 9.23 million dollar operating budget. While in FY 2006 the Derry Fire Department conducted over 7500 man/hours of fire and EMS training, averaging over 100 hours per firefighter. The training included specialized courses in heavy rescue, building collapse, trench rescue specialist, National Incident Management System, vehicle extrication, along with regular training on firefighting, emergency medicine, sexual harassment, and safety; in other words everything but personnel evaluation systems, department mission, and goals.

The current Derry Firefighter represents a fiscal investment of over \$900,000 in the first ten years of their career. During that same period, the department will spend less time evaluating employees, than that employee spends checking their pump in just one year. The Derry Fire Department will spend more time this year on training for trench rescue, a type of incident we have not had in my nineteen-year career, than we have ever done on employee evaluations in my career. Ironically, on paper, our personnel

evaluation system looks good. It has even passed the scrutiny of the Commission on Accreditation of Ambulance Services (CAAS).

Personnel evaluations at the DFD have no bearing on wages. The collective bargaining agreement governs wages, pay steps. While the collective bargaining agreement and department administrative regulations regulate the promotion process. Evaluations have minimal impact on promotion and only during the final phase, the Chief's Interview, when the Fire Chief has the right to rank the top three candidates. So if evaluations have minimal affect on an employee, why then does the DFD do personnel evaluations? We do them because we have always done them, because we have a department administrative regulation saying that we must do them, because we must annually document problem employees in case we have to discipline them, and because we are under the mistaken belief that annual evaluations will improve their performance.

The annual personnel evaluation used by the DFD is a combination trait-based and global essay (see Appendix A for a copy of the current evaluation form). Twenty various personality traits such as creativity, initiative, stability, attendance, safety, and fitness are rated on a scale from 1 (*unacceptable*) to 5 (*outstanding*). This section is totaled, with the final score, 20 to 100, being used to determine if an employee is unacceptable or outstanding. The next section consists of essays documenting employee strengths, weakness, and general recommendations or goals. The actual evaluation is a two-step process:

1. The employee is first given the evaluation form and completes all sections as part of a self-evaluation.

2. The employee forwards the form to their supervisor, who completes all sections, has an evaluation interview with the employee; both parties sign the evaluation, and then sends the form to administration.

During a conversation with DFD Battalion Chief Mike Gagnon (December 28, 2006) he stated, “Many guys just look at their score, if it is ok they don’t even bother reading the rest of the evaluation,” I have observed this as well. As I said before the system looks good on paper. It is very similar to employee evaluation systems recommended in several executive fire officer applied research projects, see McGregor (2005), Mund (2002), and Prendergast (2000). However, according to Solie (2002):

It is hard to say anything in defense of this type of system [combination trait-based and global essay]. Its fairness and accuracy are highly suspect. It is subjective, not anchored in or related to actual work behaviors. It offers no method of enhancing employee growth and development. I believe this type of system is the primary reason many people consider performance appraisals a meaningless, dreaded, once-a-year chore to be endured by management and employees (p. 8).

One look at the current employee evaluation form used by the Derry Fire Department confirms Solie’s (2002) comment about actual work behaviors. Nowhere in that form is their space to evaluate whether or not an individual has good firefighting or EMS skills.

“A poorly conducted performance evaluation might be worse than none at all” (Gorelick, 2005, p.38). As a supervisor, I have done a poorly conducted performance evaluation. I have a firefighter on my shift, who is a great employee. One of those rare

firefighters who is not only good at their job, but makes everything around him fun, and has potential to be a good officer. Two years ago, my only complaint was he seemed too comfortable in his role and needed a little push to become more of a leader. Therefore, I gave him a mediocre evaluation, thinking this was the push he needed.

The evaluation devastated him and wrecked, for a time, my credibility with him. The damaged was repaired only through the successful coaching of two company officers on my shift. This and other experiences led me to believe there had to be a better system for our organization and its employees. As I spoke to other Battalion Chiefs, I found they had similar concerns.

The days that firefighters sat around the station playing checkers, waiting to put out only fires, is gone. We expect the modern firefighter not only to have the skills to respond to a large variety of emergencies, but also have the skills to develop and administer programs that improve the lives of internal and external customers. For example, the skills necessary to participate in the self-assessment process of fire department accreditation through the Center for Public Safety Excellence (CPSE); a goal of Derry Fire Chief George Klauber, one that he informed his staff that will start in January of 2007.

To help develop these skills and to improve teamwork at the Derry Fire Department to meet department goals, to complete the CPSE fire accreditation process, or to meet any of the United States Fire Academy's five operational objectives requires a performance process that focuses on values, communication, accountability, coaching, common goal setting, and training. The current evaluation process at the Derry Fire Department does not do that. Therefore, Derry Fire Chief George Klauber asked that I do

my applied research project for Executive Development on improving employee evaluations at the Derry Fire Department.

Literature Review

There is no lacking of literature related to employee evaluations, performance appraisals, or any other of the synonymous terms. Performing online searches of EBSCO databases (see *Procedures*) resulted in over 1500, full text, peer-reviewed articles, offering a wide range of perspectives.

While performing the literature review I determined that sources tended to fall into two basic categories, a view shared by Rasch (2004): those that support traditional, annual employee evaluations; and those that support Total Quality Management (TQM) and question the validity of the annual employee evaluations.

Total Quality Management and Employee Evaluations

What is TQM? It is a management concept promoted by W. Edwards Deming (1900-1993), a statistician who helped revolutionize manufacturing in post-war Japan. He went unrecognized in American mainstream thought until the publication of his book *Out of Crises* in 1982. Deming received numerous awards including the National Medal of Technology from President Reagan in 1987. The Deming medal for improvement in quality and productivity was named after him (W. Edwards Deming, 2007).

Cardy and Carson (1996) describes TQM as an approach that focuses on prevention of errors, rather than on the detection of errors. Since system factors are the major determinant of performance errors and variability, the best way to eliminate errors and variability is to determine what system factors cause them and then change those

systems. The discovery of a problem is considered an opportunity to learn; and identify what, not who is wrong, (Bowman, 1994). Deming developed the principals of TQM using scientific procedures, logical analysis, and statistical demonstration (Deming, 1982, chap. 8).

A simple analogy to TQM is fire prevention. Consider the rate of structure fires in a community and ask, is this a stable process affected only by random error or is the process influenced by systematic factors? Cardy and Carson (1996) state, “In essence, the prevention approach of TQM incorporates the function of inspection directly into the work process itself” (¶4). Fires are the undesired variable. Effective fire prevention programs are systems based, focusing on proactive standards/goals, continuous inspections, community involvement, and training. While under TQM, firefighting represents failure; because all we are doing is reacting to the detected but preventable variable/fire.

This same reasoning is why TQM purist regard any employee evaluation process as wrong and detrimental not only to the company but to the employee as well. Employee evaluations focus on detecting errors and problems with employees after they have occurred, and have even become entrenched. They do not take a systems approach to preventing employee problems. Deming (1982, chap 3) described this as management by defect, and referred to employee evaluations as one of the seven deadly diseases of the Western style of management.

If a responsible fire department uses a systems approach to prevent fires; shouldn't the same department use a systems approach to develop its employees? “Performance appraisal can't be fixed. It is inherently the wrong thing to do. I suggest

something even more dismal. Those who have devoted their professional careers trying to find ways to improve performance appraisal are wasting their time” (Scholtes, 1999, p. 180).

Deming (1982) argued that the average individual not only accepts but also seeks responsibility, and people will direct themselves if they are committed to the goals of the organization. TQM adherents, including Rasch (2004), feel that employee evaluation systems focus on comparing an employee to an arbitrary average; while most employees do not consider themselves average, and in fact most employees are better than average. Therefore, rating against an average sets the stage for conflict between the employee and supervisor. Furthermore, who defines average?

Aluri and Reichel (1994) stated that employee evaluations stifle teamwork. This occurs because employees are evaluated as an individual, not as a member of a team. The individual who receives a higher rating may receive better wages, bonuses, promotions, or positions, and therefore there is no incentive to work as a member of a team with individuals that are potential competitors. This consequence is seen in many fire departments that rely on formal or informal employee evaluations as part of the promotion process. The Derry Fire Department is an example of this, since the Chief has the ability to promote from the top three finalists.

According to Thomas and Bretz (1994) the top two reasons why Fortune 100 companies do performance appraisals are (a) improving work performance, and (b) administering merit pay. This goes against the principles of TQM, specifically because employee evaluations do not improve performance. Rasch (2004) uses the 95/5 rule, stating that 95% of all employees want to do well, strive to do well and the causes of their

errors were system based not individual based. Therefore, doing an employee evaluation that focuses on individual performance will not improve productivity and in worst case may damage employee morale. Of the remaining 5%, Rasch (2004) states, these employees cause significant work place problems, and require frequent coaching, feedback and constructive criticism for their performance to improve. While an annual evaluation of these employees will only document problems after they have occurred and when it is too late to fix them. Supervisors in the fire service know who their, high maintenance, 5% employees are. I call them the happily disgruntled, only happy when they are disgruntled, and they do require frequent supervision. Unfortunately, we rarely document their problems appropriately, often because the annual evaluation is a poor tool or we feel that a good evaluation will boost their confidence and get them to perform. I will reference this situation later in the literature review when I discuss Professional Firefighters of Hanover Local 3288 v. Town of Hanover New Hampshire (2004).

Gray (2002) states using a system of merit pay linked to employee evaluations does not motivate employees, especially since the difference in merit pay between an outstanding and poor performer is so small as to be ineffective. Using TQM principles pay should be linked to fair market value and seniority. If the organization has effectively recruited and developed its employees, then bonus/merit pay is irrelevant. Deming (1994) in a case study quotes factory manager Mr. Bob Geiger, who gives the following reason for refusing bonus pay, “If they have to pay me a bonus to make sure that I do my job, I ought not to have this job in the first place” (Deming, 1994, p. 129)

Adhering to the absolute principles of TQM require an organization to stop doing annual employee evaluations or performance appraisals.

TQM provides both a philosophy, as well as a set of no-nonsense methods to bring about change. To make human performance an integral part of management, however, requires a paradigm shift in the meaning of work and the system used to support it. Abolishing the traditional approach to personnel appraisal is a critical signal that the transition is underway. Not to do so – to apply measurement criteria from the old paradigm to the new one – only makes things worse (Bowman, 1994, p. 134).

Now that we have abolished traditional performance appraisals, what do we do, how do we replace them? Deming (1992) says that we replace the annual employee evaluation through the modern principals of leadership including effective and ongoing education in leadership, obligations, principles and work methods; more careful recruitment of new employees; giving individual help to poor performers, while giving support, empowerment, and freedom to excellent performers; focusing on feedback with your employees, not judgment of your employees. “A leader, instead of being a judge, will be a colleague, counseling and leading his people on a day-to-day basis, learning from them and with them” (Deming, 1982, p. 117). Furthermore, Deming (1994) describes an effective manager of people as one who is an unceasing learner, a coach, one that creates an environment that encourages freedom and innovation without relying on perfection, and “will study results with the aim to improve his performance as a manager of people” (p. 127).

Employees may support annual employee evaluations because they provide information on how they are doing and what is expected of them. This is exactly why TQM states we should stop employee evaluations and focus on leadership. If an

employee is only getting feedback on their performance on an annual basis, then leadership has failed. Employees should not need the feedback of an annual evaluation, because in a TQM organization their leaders spend time with them as a coach.

Not all adherents of TQM believe we should abandon performance appraisals. Haines, St-Onge, & Marcoux (2004) felt that performance management systems could be designed in a way that they are compatible with the principles of TQM. Cederblom and Pernerl (2002) documented the development of a new performance appraisal system for the Washington State Patrol. A new committee at the Washington State Patrol, the Strategic Action Forum (SAF), designed the system. SAF performance appraisals focused on three main areas. First, support for core traditional values such as courtesy and integrity while adding TQM concepts of cultivating partnerships and customer relations. Second, integrating the agencies strategic plan into the performance appraisal, and third, a focus on critical job practices. Performance appraisals are not stand-alone concepts but part of an overall system that includes strategic planning.

How might managers proceed in order to move toward effective performance management?... Think of new ways to drive, influence, guide, report, and/or communicate performance. Perhaps we expect too much of the traditional “pencil and paper, one-on-one interview” appraisals. While it is appropriate to update these appraisal forms, *updated forms alone will probably produce only limited effect* (Cederblom & Pernerl, 2002, ¶35).

Cardy and Carson (1996) state that focus of performance appraisals should move away from the individual and towards system practices. That appraisals are an opportunity to cooperatively diagnose performance problems and identify the means for

improvement (please see Table #1: *Comparison of Traditional Approaches of Evaluations to Total Quality Management*).

Ironically, Thomas and Bretz (1994) found that none of the Fortune 100 companies they surveyed used TQM principles for their employee evaluations, despite using the principles of TQM as it relates to production operations. They found that personnel specialists, often without any meaningful employee input, designed most employee evaluation systems.

The principles of TQM do not always work and may be difficult to implement. Schaffer and Thomson (1992) surveyed 300 electronic companies, finding that 219 electronics company had adopted TQM, and that 189 of those companies had TQM failures because they had failed to improve quality by even as much as 10%. What they found applies to performance appraisal systems. Failures were cause because they were not linked to specific results, the changes were too large and diffuse, failed to re-evaluate process and ask why are they failing, that measurement standards were unrealistic, that the development of programs was staff and consultant driven, not incorporating bottom-up analysis and testing, and managers still clung to old beliefs and had bias of orthodoxy. In short, many of these companies failed, not because they adopted TQM, but failed to use – as Heifetz and Linsky (2002) described – *adaptive change*, to institute TQM.

According to Schaffer and Thomson (1992), thirty companies had success implementing TQM and for the following reasons: They introduced managerial and process innovations/change only as needed, they tested a variety of approaches to see which worked best, they provided for frequent reinforcement to keep the changes energized, and they created environment that focused on learning, training, and

continuous re-evaluation. Behavior associated with adaptive change by management and employees is required to initiate any new appraisal system; furthermore once introduced that system would need to be supported by organizational reinforcement of principals and procedures combined with effective and re-occurring training.

Traditional Views on Employee Evaluations

Traditionalists feel that employee evaluations are a valuable and essential tool for organizational improvement, are a necessity that links performance to personnel decision making, and “are key to evaluating recruitment results and determining training needs” (Longenecker & Fink, 1999, p. 18).

Evaluation tools and methods.

There are numerous methods for evaluating employees. I adapted the following descriptions of commonly used methods from Bjornlund (1997), Lyster and Arthur (2007), and Prendergast (2000).

Narrative appraisal reports are either free written, or use a structured outline that focuses on and employee’s strengths, weakness, achievements, critical incidents, and development needs. Combined with, and in support of other rating methods such as graphic rating scales, narratives are rarely free standing. This combination method is the one currently used by the Derry Fire Department. Narrative appraisals often succumb to subjective comments such as “quite good,” may give little insight into how the employee is performing as compared to organizational goals. They also rely on the supervisor’s ability to write well and the employee’s ability to understand written communications,

and therefore is an inappropriate tool for individuals with poor English-language literacy skills.

The critical incident method is a performance-documenting tool where the supervisor records actual incidents that demonstrate good or poor performance, to develop a profile of employee's behavior. It is not an evaluative tool since it lacks clear criteria against which performance is to be measured. Since its focus is on critical incidents, it fails to evaluate day-to-day performance. As a stand-alone tool, it is inappropriate, but can be effective tool when used in support of a rating. Provided the good or poor critical incident is not just documented, but also evaluated.

A marginal employee may have a good critical incident because of the action of others or luck, while a superior employee may have a poor critical incident due to circumstances beyond their control. Deming (1982, p. 110) described this in his red bead, white bead experiment. Eight hundred red beads were mixed into a jar containing 3200 white beads; six participants had to select from that jar fifty random beads. The participants were then rated on the number of red beads their sample contained. Rating an employee on this critical incident described would tell you that you have a lucky employee, but does not tell you if you have a quality employee.

Graphic rating scales, also known as trait-based scales, are a method where employees are evaluated according to a list of personality or job characteristics. They contain an adjective and a brief phrase to describe the trait, and then a scale typically from 1 (*unacceptable*) to 5 (*outstanding*). Examples of traits in a graphics rating scale include alertness, initiative, physical fitness, stability, and tools of the trade. Often these rating points are added together and the employee is rated against a perfect score. The

Derry Fire Department uses twenty traits and a perfect score is 100. This system is easy to design, easy to use, and so prone to error as to be ineffective, see Solie (2002).

The principal weakness of the rating scale is its unreliability. Different raters tend to “score” employees differently, making the numbers used for comparison suspect at best. If the rating is linked to pay, some supervisors might rate their employees at the high end of the scale to justify larger increases [or at the low end to save money] while other supervisors might attempt to motivate employees by allowing room for improvement (Bjornlund, 1997, p. 73).

To improve the effectiveness of the graphic rating scale some evaluation systems require comments to support high or low ratings, unfortunately this can encourage central tendency errors.

Behaviorally anchored rating (BAR) is a process that uses a described, specific, observable behavior to define the points on the scale. Furthermore the traits being rated are not mere adjectives or brief phrases but a specific description. Bjornlund (1997) gives a clear example of this system:

If faced with a difficult job, the employee typically (1) Stops work at the first sign of difficulty. (2) Asks for a new assignment. (3) Works on the job until an opportunity arises to work on another task. (4) Asks for help from the supervisor or colleagues after attempting it on his or her own. (5) Works diligently, often past normal quitting time, until the deadline. (6) Works until the job is completed without errors (p. 74).

This system is easy to use, and it helps focus discussions between supervisors and employees on observed performance and specific incidents. This system requires a

close working environment between the supervisor and the employees, since it relies on direct observation, e.g. between a company officer and a firefighter. The design and development of BAR is a complex system that requires matching to a specific functional job description. Description and analysis of each trait in the job description is required, and then each trait is broken down into specific rating criteria. Because it is a complex system, the development of it is prone to error.

Self-appraisals are a very common component of employee evaluation systems, including the one used by the Derry Fire Department. They often use narrative, critical incident, graphic rating scales, BAR, or a combination. The employee completes the form before the supervisor completes it. Self-appraisal is a tool for feedback. The idea is that the employee then has a voice in the evaluation process and the final rating.

The 360-degree evaluation is when all who interact with the employee, anonymously rate the employee. These people can include supervisors, peers, subordinates, citizens, customers, and so on. The difficulty of this system lies in selecting people from outside the organization to evaluate the employee and on maintaining anonymity. To maximize the effectiveness of this system requires extensive administrative oversight as well a computer database for automated input of the individual evaluations. Numerous articles describe how to implement and improve 360-degree evaluations including Jackson and Greller (1998), Rogers, Rogers, and Metlay (2002).

360-degree evaluations are an effective tool since the employee receives information about their performance from multiple viewpoints and sources. What it does not provide is 1:1 feedback with their supervisor and the development of goals.

Furthermore, according to Bjornlund (1997), when used as a performance or evaluation tool it often loses its effectiveness due to leniency error, especially when tied to pay or promotions. Perhaps that is why, according to Thomas and Bretz (1994), virtually no Fortune 100 company uses 360-degree evaluation. Furthermore, Aluri and Reichel (1994) stated “performance evaluations [narrative, graphic rating scales, BARS, 360-degree] are similar to lotteries in the sense that employees with similar accomplishments receive differing ratings depending on when the evaluations take place and who conducts them” (p. 149).

Management-by-objectives (MBO) is a common evaluation method where employees are evaluated on how well they achieve specific objectives as defined by a management team, e.g. develop a fire code to be adopted by the town council. A variation of this is progress against goals. Supervisors and employees meet and mutually discuss goals for the next year. These goals may be individual in nature, in support of a crew, or in support of the department as a whole. At the end of the year, these goals are rated as met or not met. Bjornlund (1997) feels that “if implemented well it encourages both the supervisor and the employee to focus on the job that needs to get done rather than on achieving a perfect score” (p. 75). Furthermore, by avoiding rating scales, it forces supervisors and employees to have meaningful discussions that focus on feedback and results, not mere numbers.

To be effective, goal oriented assessment tools require training for employees and supervisors on how to develop effective and achievable goals. Shaw (2004) describes it as:

Goal-setting training stipulates the use of “SMART” criteria or attributes (i.e., Specific, Measurable, Achievable, Results-based, and Time-specific) in writing goals. The attributes of specific and time-specific obviously refer to the attribute of specificity.... The measurable attribute implies the ability to get feedback. The achievable attribute is intended to promote commitment. The results-based attribute is important but does not rule out setting goals for actions that lead to outcomes as well as for the outcomes themselves (p. 139).

Shaw (2004) further defines goals as commitments, while stressing the importance of training, well-defined organizational goals, along with personal and organizational accountability. Supervisors and employees mutually develop the commitments, the implementation plan, and the accountabilities. Defining accountabilities as “success measures and metrics to evaluate the realization of your commitments” (Shaw, 2004, p. 142).

MBO has important practical applications to the fire service. A study by Antoni (2005) showed that MBO could facilitate teamwork, group productivity, and job satisfaction particularly among self-regulating teams. A good example of a self-regulating team is a fire company.

Common errors associated with employee evaluations.

Any method of evaluating employees can be subject to error, BAR, 360-degree, and MBO rating methods were developed to minimize these common errors or biases. I adapted the following descriptions of common errors and biases from Bjornlund (1997), Lyster and Arthur (2007), and Shepard (2005).

The halo effect is when an employee is rated artificially high in all or several areas, because they demonstrate excellence in one. Bjornlund (1997) cites the following example:

If an employee arrives at work early and stays late every day, for example, the supervisor may be likely to assume that this employee is dedicated, diligent, and committed and may rate the employee as excellence in several areas. In fact, arriving early and staying late may reflect poor time management on the part of the employee (p. 84).

Horn effect is the opposite of the halo effect. It is when an employee is rated artificially low in all or several areas, because of poor performance in one. Shepard (2005) describes an employee who has excellent skills in many areas, but is rated artificially low in those areas due to chronic tardiness.

The evaluator, who avoids giving low or high ratings, using only average ratings, has succumbed to the error of central tendency. This may be done to avoid the conflict caused by a low rating or to avoid having to write comments that are in support of a low or high rating. Shepard (2005) states that one of the causes of central tendency error is: “when the evaluator has insufficient documentation of the employee’s performance to provide enough substantial information to assign low [or high] scores” (p.37).

The error of leniency is when a rater gives positive evaluations to an employee, to avoid conflict. Shepard (2005) described a common situation for leniency occurs “when managers work in the trenches side by side with their employees, some spirit of camaraderie must exist...” (p.36). This seductive error easily occurs in the fire service.

Raters live with, e.g. during a 24 hour shift, and are often friends with those they rate, and therefore may find it difficult to be honest in the evaluation of their crew.

Harshness, also known as severity bias, is the opposite of leniency, and is when a rater gives an unnecessarily negative evaluations to an employees. A rater may do this so that they look like a tough, no-nonsense leader to their supervisor. Harshness may also occur because a rater feels that employees will only improve if given harsh evaluations.

Contrast errors occur when a rater judges employees against each other, and not against specific standards, goals, or values. This is another seductive error, particularly when you have a truly excellent and outstanding employee on your crew, who makes other successful employees look like they need improvement. Contrast can also occur if you have a bad employee on your crew, who makes marginal employees look successful or excellent.

The error of guilt by association is when who the employee they hangs out with negatively or positively influence the employee's evaluation.

Attribution bias is when a rater has preconceived notions of individuals or groups affect their assessment. In other words, prejudice against or for gender, sexual orientation, race, ethnicity, marital status, family status, physical appearance, age, or creeds. This bias can get the rater and the department into significant legal or disciplinary trouble. Lyster and Arthur (2007) expanded on this:

This information, [age, race, gender, disability status, etc.] however, is not vital to the employee's work performance and, therefore, should never be mentioned during the performance process. All of this information is protected under equal opportunity employment law (p. 63)

When a recent event (positive or negative) un-duly affects the performance assessment process, it is called recency bias. An easy example is the firefighter who excels during a recent structure fire is highly rated in all categories, despite the fact he was counseled several months prior for chronic tardiness.

Seniority bias, also known as length of service bias is when a rater assumes an employee is more valuable because they have been employed for a long time. This occurs in the fire service. Shepard (2005) cited the following example:

An employee who received outstanding performance evaluations for the past 20 years should have no advantage in the present evaluation if his or her current performance is substandard. Allowing this to happen gives the employee permission to coast until retirement (p. 41)

The opposite sometimes occurs, and is a more serious bias. It is when an employee is rated low, because they have been employed for a long time. The old out with the old, in with the new attitude, and it is a form of age discrimination.

Regular training on employee performance assessments is one of the best ways to avoid many of these errors. Shepard (2005) describes another effective method to avoid rating errors: “The best way to prevent these effects [errors] is to install a system of checks and balances. A smart supervisor submits completed performance evaluations to upper management for review before meeting with the employee” (p.39).

Although not an error or bias, one of the most frequent critiques of employee evaluations is that they are subjective. MBO and BAR are techniques that try to make evaluations more objective. Nevertheless, subjectivity still has a place in evaluations.

Because as Grote (2000) states we pay supervisor for the quality, often subjective, of their opinions.

Fire service sources

To me a literature review should illustrate materials that support your research; and highlight sources that have original insights. What surprised me during the literature review was how little there is in fire service literature about employee evaluations, for example the *The Fire Chief's Handbook* contained nothing on employee evaluations (Bachtler and Brennan, 1995; and what is published is often recycled common principles, often re-enforcing the use of traditional graphic rating scales that are combined with narrative comments.

Aurnhammer (1996) stressed the importance of regular communication outside the evaluation process, that evaluations need to be kept confidential, to accentuate the positive, that observations need to be objective and pertinent, all while giving an annual evaluation based on a five-point graphic rating scale. These are the same points illustrated by Hosea (2004), Bogard (2000), and Billows (1983). Interestingly though, Billows (1983) based his evaluation system on forced-choice graphic rating scale of 1 to 5. He selected this system to avoid rating errors caused by the halo effect.

Why evaluate personnel, was the topic of a traditional approach to evaluations by Neely (2002), who stated evaluations increase employee productivity and satisfaction. This goes against the principles of TQM: "This is especially ironic because personnel ratings have created tension, defensiveness, and avoidance on the part of both managers and employees and usually do not improve performance" (Bowman, 1994, p.129).

Besides the points raised by Aurnhammer (1996), LaFord (1998) added a self-evaluation component to the annual review. His proposed self-evaluation had twelve points; some were standard questions including review of goals from prior evaluation and establishment of new goals. LaFord (1998) did include two interesting questions for a self-evaluation: “Is there anything that the organization or my supervisor does that hinders my effectiveness... Does my present job make the best use of my capabilities?” (p. 24). Finally, in LaFord (1998) we are seeing an inadvertent move towards a TQM principle, that is “to analyze process to identify barriers to quality” (Bowman, 1994, p.129); and away from the traditional American view that the problem with the process is always the employee.

Solie (2002) demonstrates this move towards TQM by stating; we need to develop rating scales not based on generic personality traits but on analysis of essential job knowledge, skills, abilities, and others; then grouping these into specific job tasks and competencies, in a manner similar to behaviorally anchored rating scales. Solie (2002) still focuses on a traditional approach to employee evaluations, but with an emphasis on developing a process to determine what an employee actually does, and then grading that. The problem with this system is like all behaviorally anchored rating scales, it is complex and therefore prone to errors. Bjornlund (1997) states:

In many cases, the scale [behaviorally anchored rating] includes situations that the employee may not have confronted or that the supervisor may not have witnessed. Requiring the supervisor to make his or her best guess about what the employee would do under this circumstance has led to questions about the mechanism’s validity (p. 74).

This is an issue in the fire service. Company Officers are in constant contact with their subordinates and should witness most behaviors. The problem arises when you have shift commanders, who may be responsible for several fire stations, evaluating firefighters and company officers. These shift commanders are not able to observe their subordinates during many emergency and non-emergency activities. Instead shift commanders may rely on second hand information to rate their subordinates.

The review of fire service literature did yield two insightful articles that bucked the traditional employee evaluation. Booth and Hosnick (1983) stated “To avoid rater bias use a rating system based on a specific observable behavior and scored using symbols rather than numbers” (p. 38). Their system was similar to but different from behaviorally anchored rating scale in that it is not a forced choice system; rather each behavior description is symbolically graded. They used techniques common in surveys; in fact, their form is a survey on a specific employee. First, they determined fifteen core competencies for a firefighter, ranging from firefighting techniques to ability to act out of grade. They then used three specific, observable, behaviors associated with each core competency. One behavior was below standard, another was satisfactory, and one was above the standard. An example showing a satisfactory behavior is “This individual is usually willing to perform the duties of an out of grade position, although he occasionally shows a reluctance to accept some of the associated responsibilities” (Booth and Hosnick, 1983, p. 40).

This generates an evaluation form consisting of forty-five questions, which are then placed in a random order. The rater scores the firefighter using n/a (not applicable), - (below the standard), = (meets the standard), + (above the standard). A firefighter who

is above the standard in a core competency would have a + in each of the three behaviors. Once completed each core competency is scored on a scale of 1 to 7 based on matrix of how many –'s, ='s, and +'s they received.

Like a survey, each competency had a different scoring weight, depending on the importance of that competency to the fire department. For example, initiative and dependability had a weight of 7 (highest), while interactions with superiors had a weight of only 1 (lowest). When all is said and done, the weighted scores in each core competency are added together to yield a final score between 62 (lowest) and 434 (highest). Booth and Hosnick (1983) designed a rating system that probably minimizes horn and halo effects, as well as many errors associated with graphic rating scales, and behavior anchored rating systems. However, it still only yields a score, and I can picture how this evaluation interview will take place: “Hey, Phil, come on in. I did your evaluation and you’re a great guy, I gave you a score of 273. Do you wanna have a beer after work?” “Geez, Cap, thanks, sounds like a great idea.”

What is frustrating is that none of these sources talks about linking the mission, goals, and values of an organization to an employee evaluation system. Even the following source, the most informative of the journal articles, does not link evaluations with goals.

Hymes (1996) advocates a bottom-up performance appraisal. This is different from a 360° evaluation, because only the subordinates rate their supervisors. Although his article does not mention TQM, his idea seems to have significant use, particularly for supervisors above the rank of Lieutenant. Hymes’s (1996) idea is similar to the Leadership Profile Tool that was done as part of the Executive Development course at the

National Fire Academy. Hymes (1996) states that for the system to work those completing the survey form must remain anonymous, and to ensure anonymity Hymes (1996) suggests that bottom-up performance appraisal only works when there are more than three subordinates. Hymes (1996) states:

A fire department group is generally an engine or truck crew and with few exceptions, can be thought of as a peer group. Even though we recognize that different ranks exist in these groups, the practical relationship is one of a tightly knit company that usually operates as a cohesive team, especially under emergency conditions. We find then that these groups share a maximum of personal as well as job-relevant knowledge, and their combined judgments bear information of appreciable worth (p.112)

The strength of this system is that multiple individuals with differing points of view evaluate the supervisor. The problem I see with this system is the risk that supervisors may begin to pander to the rating process, i.e. to the employees, in order to get a favorable review; or that a supervisor may seek revenge against the group for a poor evaluation. If a department has done a good job making promotions, then we should not have leaders that would fall into those traps. Riggio and Cole (1992) support Hymes (1996) arguments:

Subordinate appraisals offer a number of distinct advantages over traditional superior evaluations. First, they offer a different perspective on a supervisor's performance, assessing such things as the supervisor's leadership style, interpersonal skills in dealing with subordinates, delegation of authority, and day-to-day organization and planning (p. 152)

The interesting thing about Riggio and Cole (1992) is that their study for the *Journal of Occupational & Organizational Psychology* was about firefighters in Southern California. They found that firefighters' evaluation of their company officer was similar to their company officer's evaluation of their superior. They attributed this to:

Firefighters and supervisors work in close contact with one another in "teams."

Even though the organizational structure is quite traditional, with a strict authority hierarchy, the members of the organization--because of their close contact with one another caused by "living arrangements" at the fire stations--may not have some of the 'adversarial' relationship found between subordinates and superiors in other traditional organizations (Riggio and Cole, 1992, p. 157).

The cliché is that firefighters are different. What may work in a manufacturing setting, the birthplace of TQM, for developing systems that enhance performance without doing damaging employee evaluations, may not work in the fire service. There are organizations that share similarities defined by close relationships in common living arrangements and that is in the United States Military.

Evaluation Systems used by the United States Military

The following sources were reviewed: United States Air Force (2005), United States Army (2006a), United States Marine Corps (2004) and United States Navy (2005); and for clarity, except if directly quoted, I will refer to them as Air Force, Army, Marines, and Navy.

Although each branch had different evaluation systems, there were striking similarities. Each system discussed the importance of using a rater (immediate supervisor) and a senior rater (the rater's supervisor). The purpose of the senior rater was

to review the completeness of the form, ensure that appropriate descriptive language was used, that appropriate documentation of derogatory or commendatory performance was done, that common rating errors were avoided, and to make a final recommendation on the subject's potential for promotion. Also all the services have a detailed and thorough system by which a subject can appeal their evaluation.

Both the Marines and the Air Force have adopted automated systems for completing and filling out the forms. Air Force Captain William Gillis (meeting on July 24, 2006) demonstrated the Air Force's system, showing that it is very easy to use, allowing members to complete forms, save forms, print forms, and email the forms up the rating chain. Ironically, the Marines call their automated system APES for Automated Personnel Evaluation System.

APES integrates the Marines fitness reporting system with their electronic Unit Diary (United States Marines Corps [USMC], 2007a) The unit diary is an electronic record that is maintained on an almost daily basis, and it automatically keeps track of each Marines performance, training, and education, which are then translated into points that are used for promotion and pay. Several basic philosophies of the Marines evaluation system, adhere to TQM principles (Deming, 1994, p. 127), and apply directly to the fire service:

Focus. The fitness report is a documentation of observations and assessments of individual performance, personal qualities, character, and potential to serve at a more senior level. The fitness report is not: (a) A disciplinary tool. (b) A lever to exert influence....

Measurement. Reporting seniors must evaluate against missions, duties,

tasks, and standards as communicated by the RS [rater] to the MRO [subject]. Measure Marines against known Marine Corps values and soldierly virtues, not against a personal set of precepts and unreasonable expectations.

Ethics. Professional ethics constitute one of the foundations of the PES. Reporting officials must preserve the high standards of Marine Corps integrity and moral courage. Personal biases have absolutely no place in the process.

Avoiding Zero Defects. Reporting officials must consider that Marines develop by having the latitude to make mistakes. Reporting officials must encourage initiative, aggressiveness, creativity, courage, and development of warfighting skills and not dampen them by fear of making mistakes. Attaining perfection certainly is a legitimate goal, but rarely is it a reality. The realistic goal is to experience, learn, and grow professionally. (USMC, 2004, p. 1-5)

The Air Force, Navy, and Marines all use similar basic methods for their evaluations, specifically a modification of BARS with focused narrative comments (see Figure 1: *Marine Corps Modified BARS with Focused Narrative*). The Marines also do an assessment that compares the subject against all other Marines (see Figure 2: *Marine Corps Comparative Assessment*) and ranks them from unsatisfactory to “the eminently qualified marine” (United States Marine Corps, 2007b).

The Army’s evaluation system is different in two ways. First and foremost, the system focuses on Army Values, both on the form and in the regulations (see Figure 3: *Part IV – Army Values*).

Part IV contains a listing of the Army values and the dimensions of the Army’s leadership doctrine that define professionalism for the Army officer. These apply

across all grades, positions, branches, and specialties. They are needed to maintain public trust, confidence, and the qualities of leadership and management needed to sustain an effective officer corps. *These values and leader attributes/skills/actions are on DA Form 67–9 to emphasize and reinforce professionalism* and will be considered in the evaluation of the performance of all officers (United States Army, 2006a, p. 24)..

Second, the Army uses three scale categories, needs improvement, success, and excellence to rate descriptive soldier processes that resemble TQM principles as outlined by Deming (1982). See figure 4.

Legal Aspects of Employee Evaluations

One of the most common reasons for doing employee evaluations is that they are legal documents, and may be needed for legal defense. Klauber (1999) states “Employee evaluations become part of an employee’s permanent file and as such, they have the potential for use in future decisions regarding the employee” (p. 16).

General legal concerns.

Lawsuits, relating to the content and effect of employee evaluations are typically filed because of (a) wrongful discharge; (b) of discrimination in selection, promotion, downsizing, and disciplinary actions; (c) slander and libel from untrue statements in an evaluation; (d) retaliation by management, e.g. union activities or whistle blowing (Zachary, 2000). Although there are legal requirements regarding employee records, Gray (2002) states there are no legal requirement requiring that employee evaluations are done.

Furthermore, some lawsuits results from overly positive evaluations, Zachary (2000) gives the example of the employee who was denied promotions despite good reviews. The employer was pleased with the subject's performance; although the subject needed improvement in some areas, this was never documented. The employer committed leniency error to avoid litigation and conflict, only to end up in court. Negative evaluations are typically challenged on the grounds of discrimination – attribution bias.

Four major federal labor laws affect employee evaluations, according to Shepard (2005) they are: Age Discrimination in Employment Act, Americans with Disabilities Act, Pregnancy Discrimination Act, and Title VII of the Civil Rights Act of 1964. These acts all have bearing on how an employee evaluation is administered. For example, during an annual evaluation a supervisor documents that a female firefighter is trying to have a child. Based on this information she is passed over for an assignment as an assistant Training/Safety Officer. The rationale being that no sooner do we get her trained and in the position, she will become unavailable to work at emergency scenes due to pregnancy, and then is going to be gone for three months on maternity leave.

On the surface, this is a logical line of thought, except that it is illegal and in violation of the Pregnancy Discrimination Act. Her evaluation committed the error of attribution bias by mentioning her impending family status. Even if she was passed over for legitimate reasons, by mentioning an impending pregnancy in the evaluation, it gives the appearance she was passed over due to discrimination.

Shepard (2005) and Lyster (2007) state that to avoid legal pitfalls, employers should incorporate the following into their evaluation process: (a) properly train and

provide regular refresher training to all evaluators; (b) evaluations should be cross-checked by senior management before the evaluation is given to the employee; (c) there should be an appeal process; (d) avoid vague comments, instead use comments based on facts and observations; (e) carefully review the evaluation for attribution and other biases; (f) have the employee sign the evaluation, even if they disagree with it.

An appeal process provides a safety valve to employees who feel they are being treated unfairly, or discriminated against. It is similar to the formal process used by employees who claim sexual harassment. The Equal Employment and Opportunity Commission (EEOC) is less likely to certify a case against an employer, if that employer has an effective and fair appeal process. “This process also provides an internal checks-and-balances system for upper management to get a handle on how front-line supervisors are doing in administering the evaluations” (Shepard, 2005, p. 14). Finally, an appeals process can provide an affirmative defense if an employee claims discrimination, but did not participate in the appeal process. Also, having employees sign their evaluation provides an affirmative defense, because it shows that employees are aware of the contents and ramifications – positive or negative – of the evaluation.

The actual effectiveness of an employee evaluation providing legal protection to an organization is debatable. Gray (2002) states the employee evaluations give only the false appearance that the system is fair, objective, and equitable, since they are rife with errors, and therefore are indefensible in court.

For example, when I worked in corporate human resources years ago, managers often came to me asking how to terminate an employee due to “performance problems.” The first thing we would do was review past performance appraisals.

No surprise: The prior evaluations were often extremely positive, glowing affirmations of the employee's value and how the company would suffer if he or she left (Gray, 2002, p. 17).

New Hampshire law and employee evaluations.

Case law involving employee evaluations in New Hampshire falls into three areas, cases regarding the certification of bargaining units, cases involving collective bargaining disputes, and cases involving wrongful termination or discipline.

Errors of leniency in the employee evaluation was one of the main reasons the Town of Hanover lost a hearing before the New Hampshire Public Employee Labor Relations Board (NHPELRB), in *Professional Firefighters of Hanover Local 3288 v. Town of Hanover New Hampshire*. The town had discharged a member of the local, the local filed a grievance on behalf of the employee, and an arbiter upheld the grievance. Hanover refused to reinstate the employee forcing Local 3288 to file an unfair labor practice with the NHPELRB.

In the findings of fact, before the NHPELRB it was determined that the arbitrator's decision to award reinstatement was due to a detailed examination of the performance evaluation. The subject's supervisor testified that, he felt the subject was not honest, could not apply firefighting knowledge, and that he believed the subjects continued employment was unsafe to himself and his colleagues. The subject's supervisor held these opinions despite having evaluated as "meets expectations" in knowledge, commitment to complying with rules, and safety. The NHPELRB upheld the ruling of the arbiter, ordered the reinstatement of the subject, ordered that the subject be made economically whole, in a large part due to the employee evaluation. The

NHPELRB also stated the termination did not meet the just cause language of the CBA, partially because the evaluation did not warn the employee they were at risk. Gray's (2002) observation were supported by the actions of the NHPELRB.

New Hampshire RSA 273-A:8 governs the make-up of public employee bargaining units. To qualify as a certified bargaining unit there must be ten or more employees and "persons exercising supervisory authority involving the significant exercise of discretion may not belong to the same bargaining unit as the employees they supervise" (NH RSA 273-A:8 II, 1983). Often New Hampshire towns will petition to have members excluded from a bargaining unit, once these members are excluded the bargaining unit becomes less than 10 members, and the bargaining unit is decertified. The type and scope of employee evaluation is one of the tests used to determine if a supervisor has significant authority, and therefore should be excluded from the bargaining unit. The precedent for this is the New Hampshire Supreme Court (NHSC) case of *Appeal of the East Derry Fire Precinct*, 137 NH 607, 610 (1993). The NHSC ruled that since captains performed employee evaluations that could result in disciplinary action they were to be excluded from the bargaining unit that included lieutenants and firefighters.

The NHPELRB has used this ruling to allow the inclusion of supervisors in *Laconia Professional Firefighters, Local 1153 v. City of Laconia*. There they ruled that evaluations conducted by captains and lieutenants have historically been corrective or instructive in nature. These evaluations were not precursors to discipline, merit pay, or promotions. They concluded that captains and lieutenants might be supervisory in nature

due to their rank; but they were not sufficiently vested with disciplinary authority to cause their exclusion from the bargaining unit.

This was not the case in *Gilford Professional Firefighters, Local 3517 v. Gilford Fire-Rescue Board of Fire Engineers*. The NHPelRB found that captains and lieutenants, have disciplinary authority, assess a firefighter's fitness for duty; and therefore, are excluded from the bargaining unit.

Although New Hampshire has no laws requiring employee evaluations, the requirements and system of employee evaluations is often the content of a CBA, particularly with teacher's unions. In *Pittsfield School District v. Education Association of Pittsfield, NEA-New Hampshire*, the NHPelRB ruled that the school district had violated the CBA by unilaterally changing the employee evaluation system. The NHPelRB further stated the only way the current employee evaluation system could be changed was through collective bargaining.

Mission, Goals, Values and the Performance Assessment Process

A key to the TQM approach on performance appraisals is integrating them with the mission, values, and goals of the organization; this was clearly identified in United States Army (2006). Deming (1982) stated organizations need to create constancy of purpose; an adherence to an organizations mission, goals, and values does this. Woodford and Maes (2002) discussed the importance of integrating employee evaluations into an organizations strategic plan, and designing employee evaluations to support and advance the mission, values, and goals of an organization. This is confirmed by Austerman (1999), who states:

There are three ways in which value statements impact organizations. One, they provide a signpost for decision-making and conduct. The nature of values defines what the activities and results "should be." Second, organizational culture is articulated in value statements. Defining organizational culture assists employees as they arrive at shared goals and expectations. Third, they motivate and inspire members to a sense of commitment that contributes to improving organizational performance (p.175-176).

Osborne (1991) wrote that the process of developing and implementing core value statements would increase employee performance, by providing them with a global vision. He also felt that integrating mission, goals and values into a performance appraisal process is essential, "We carefully document, continually review, and clearly communicate progressive values, mission, objectives, and strategies. Individual objectives are negotiated, documented and are the basis for performance evaluation" (Osborne, 1991, p. 29).

Wren (1995) stated that the development of a strategic plan should involve multiple constituencies, including citizen advisors. Finally, Wallace (1998) states "The values of an organization comprise the system of beliefs that guides it in all it does. The 'value system' is an enduring organization of standards or principles that represents the preferred conduct or operational results of the department (§19).

Summation

This literature review represents the heart of my research, and represents three distinct choices. Choice one, continue with the traditional approach, focus on an annual evaluation that follows one of the formats suggest by Bjornlund (1997). Choice two,

adopt the point of view of Deming (1982) and his followers: use TQM principles to develop leadership skills, problem prevention, process analysis, accountability, and abandon employee evaluations altogether. Choice three, use the example of Cederblom and Pernerl (2002), adapt the principles of TQM with an employee evaluation process; a process that includes appropriate legal protections, and a focus on values as suggested by Osborne (1991) and United States Army (2006b.)

Procedures

The following research methods were used, (1) a literature review; (2) TRADE; (3) survey of line firefighters and supervisors; (4) focus group; (5) telephone interviews; (6) review of DFD documents. To facilitate the free-flow of information I guaranteed that the surveys, and comments made during the focus group would remain confidential (see Table 2: *Research Questions and Procedures*).

Literature Review

I started the literature review while I was at the National Fire Academy, enrolled in Executive Development. Using the automated catalog of the Learning Resource Center (LRC) I queried the following words, alone and in combination: appraisal, employee, evaluation, fitness report, performance, personnel, and review. From these queries, I was able to access executive fire officer applied research projects and journal articles. The information garnered from the LRC combined with my own extensive library resulted in the bulk of sources used in the fire service section of my literature review.

Using the internet, I was able to search and locate all current military forms and regulations regarding personnel evaluations. Since the Air Force and Marines use an automated system, I was able to download software that allowed me to generate and view the forms used in their respective systems. The reference *United State Marine Corps* (2007b) directs you to the portal by which you can download *PES Winfe 3.1* – the program that allows Marines to access and generate the forms used in the Marine Corps Personnel Evaluation System (PES). Captain William Gillis, USAF, showed me how to locate the different military portals on the web; he further demonstrated and explained to me the Air Forces automated evaluation system. Captain William Gillis is an Air Force Reservist with the 514th Air Mobility Wing based out of McGuire Air Force Base in New Jersey. He is also a Lieutenant on the Derry Fire Department assigned to Battalion Chief Webb's group.

Using the internet, I queried Google. This was not effective; my queries often directed me to commercial sites selling software, consulting, or legal services. Furthermore, googling “employee evaluations,” garnered 1,380,000 hits; while googling the term “employee evaluations firefighting,” garnered a mere 982,000 hits. This process did not result in anything useful. Interestingly, though, when I queried “employee evaluations firefighting tqm” the first of 24,000 hits was for <http://www.termpapers-on-file.com/ses.htm> where I could download a thesis on labor issues in firefighting for \$248.

The bulk of the sources obtained for the literature review came through the Derry New Hampshire Public Library. The library, through its site <http://www.derry.lib.nh.us>, allows any person with a Derry library card, to access numerous aggregate databases, including those maintained by EBSCO information services. From home, using this site I

was able to search the following databases, MasterFile Premier, Business Source Premier, and Academic Search Premier, (see appendix B: *EBSCO Databases*). Using EBSCO I was able to access thousands of peer-reviewed journals and download full text articles in either HTML or Adobe PDF formats.

I obtained the materials listed in the legal section of the literature review through the assistance of Jake Krupski, Esquire, during a telephone interview. Attorney Krupski is an associate of the law firm of Cook and Molan, PA in Concord, New Hampshire. He is a labor law specialist and represents many public employee unions, including the Professional Firefighters of New Hampshire – the International Association of Firefighters state affiliate. Attorney Krupski provided me with legal cites, and suggested that I review specific cases – see references – that were available through the New Hampshire Public Employee’s Labor Relation Board web site, <http://www.nh.gov/pelrb/>.

The biggest problem that occurred during the literature review was the sheer volume of peer reviewed, full text, information available – over 1500 articles on, or related to performance appraisals. What I did, with some success, to get around this situation was I mined cites. While reading an article, if it cited another article that looked intriguing, I would go back to EBSCO and retrieve that article. For example, once I retrieved Haines, St. Onge, and Marcoux (2004), I was able to mine and retrieve Bowman (1994).

TRADE

TRADE stands for Training Resources and Data Exchange Network. TRADE has two components, A United States Fire Administration operated information list server available at <http://www.usfa.dhs.gov/nfa/trade/index.shtm>. The second component is data

repository, specific to firefighting training. The data repository is a partnership between United States Fire Administration (USFA), and the Fire/Emergency Training Institute (FETI) of Louisiana State University, it is located at <http://www.feti.lsu.edu/municipal/NFA/TRADE/>.

In March of 2006, prior to attending Executive Development, I posted an inquiry on TRADE requesting information on employee evaluation systems. In July of 2006 I responded to an inquiry by Deputy Jeffrey Newbury of the Ottawa Fire Department. Chief Newbury had also posted a TRADE inquiry on evaluation systems.

I found TRADE of limited benefit. I received no replies to my original inquiry from March, and the data repository has no information on employee evaluations. Although, as a training officer, I have found the data repository, with its library of training programs for fire, rescue, and ems operations, to be helpful. Deputy Newbury forwarded to me a variety of employee evaluation forms and one manual. This information was beneficial to my research.

Survey of Line Firefighters and Supervisors

The purpose of the survey was to determine the overall level of satisfaction and effectiveness of the current Derry Fire Department's annual employee evaluation system, and to determine how much time supervisors spend writing and administering the employee evaluation. Furthermore, the purpose of the survey was to support the following research questions: (1) What are the goals of the Derry Fire Department, and do the employee's understand them? (2) How can an employee evaluation process improve the teamwork of a company?

I used *How to conduct organization surveys: A step-by-step guide*; by Edwards, Thomas, Rosenfeld, and Booth-Kewley (1997), as a manual for the development and administration of my survey.

To design the survey I conducted, as Edwards et al. (1997) recommend, a pre-survey focus group. The focus group, an on-duty crew, consisted of a company officer, two firefighters, and two firefighter/ paramedics. They were selected because they were not assigned to Central Station – the location of the Battalion Chief's office, and due to swaps, the crew had members from three separate groups. I guaranteed that all comments and suggestions made by the focus group would be anonymous. The process lasted about two hours.

The purpose of the focus group was to help design the survey and to give me general feedback, opinions, and ideas about a performance assessment process. The format of the focus group was open ended, after reviewing their purpose, I started asking the following questions to provide structure: (1) What do you think of our employee evaluations? (2) How much effort do you put into employee evaluations? (3) What should be included in employee evaluations? (4) What experience do you have with employee evaluations outside the DFD? (5) Do you think it is worthwhile that we even do evaluations?

Using the information from the focus group, I developed twenty-nine questions covering six dimensions: (1) satisfaction with evaluation process; (2) knowledge of department goals; (3) frequency of follow-up with individual goals; (4) objectivity of evaluations; (5) evaluations as a tool for communications; (6) frequency of training

regarding evaluations. The rating scale was a five point, Likert response format, with a neutral midpoint (Edwards et al., 1997, pp. 43-44).

A captain, a firefighter/paramedic, and I reviewed the survey. During the review process, we eliminated many questions due to vagueness or redundancy; while we added a section specific to supervisors, with a seventh dimension. That dimension was time spent on employee evaluations. The final survey had firefighters answering questions #1 to 16, and supervisors answering questions #1-20, (see Appendix C: *Derry Fire Department Employee Evaluation Survey*). Questions were placed in random order, and as recommend by Edwards et al. (1997) some questions within the same dimension were written to use a reverse Likert response format, see questions #5 and #11 in Appendix G. Edwards et al. (1997) stressed simplicity and brevity as keys to an effective evaluation, therefore the number of questions was deemed sufficient, and for simplicity, none of the questions or dimensions were weighted.

Edwards et al. (1997) state “if a population is less than 200, the entire group should be used” (p. 63), therefore, my sample was all line firefighters (includes firefighter/paramedics), and all line supervisors; excluding a probationary firefighter, and myself. I excluded the probationary firefighter because that person had insufficient experience to comment on our system. The surveys were administered during group training; resulting in 45 out of 49 firefighters (91.8%), and 19 out of 20 supervisors (95%) completing the survey, providing a 95% degree of confidence (Executive development [R123]: EFOP applied research self-study guide, 2005, p. 38).

To maintain anonymity, the respondents sealed all surveys in a plain white envelope, and none of these envelopes were opened until after the survey had been

completed. The surveys were tallied, evaluated, and charted using Microsoft Excel, see figure 5.

After the survey, results were analyzed. I followed it up with a brief post-survey focus group, consisting of an on-duty crew of a company officer, three firefighters, and two firefighter/ paramedics. I asked this group two questions: (1) what are the goals of the department? (2) How did you get training on employee evaluations?

Focus Groups

I used three focus groups, the first two as part of the survey. The final focus group was to review, edit, and comment on the results of my research contained in a rough draft of *Performance Assessment: Instruction Manual for the Derry Fire Department*. This focus group consisted of two company officers, three firefighters, and three firefighter paramedics. I gave the group copies of the manual, and a brief overview of the system. We then reviewed and discussed the manual. I then requested that members write comments in and edit the manual. Finally, I asked the group following questions: (1) would this performance assessment process improve teamwork? (2) Is this system easy to use, is there too much paperwork? (3) Do you like having the mission, goals, and values of the Derry Fire Department, linked to evaluations?

Telephone Interviews

I interviewed senior officers from several of the surrounding career departments. The purpose of the phone interviews was to determine what employee evaluation systems were used in their departments; why that department evaluated employees; what impact those systems have on wages, benefits, promotions, and discipline; and what where their

thoughts on employee evaluations. These interviews typically lasted ten to fifteen minutes, and took place during the week of January 22, 2007. I interviewed the following people, Captain James Roger, Assistant Chief Paul Parisi, District Chief Nick Campasano, and Deputy Chief Bob Leuci.

Captain Roger is the training officer and shift commander for the Londonderry (NH) Fire Department. The Manchester Airport, a large regional facility, is located in Londonderry. Assistant Chief Parisi is with the Salem (NH) Fire Department. Salem is a major retail destination for New Hampshire and Massachusetts. District Chief Campasano is with the Manchester (NH) Fire Department. Manchester is the largest city in New Hampshire, and it is a traditional, old New England Mill town, that is in the process of a dynamic economic revitalization. Bob Leuci became Deputy Chief of the Windham (NH) Fire Department in October 2006. Prior to that, he had been Superintendent of Training with the Nashua (NH) Fire Department. Nashua is the second largest city in New Hampshire.

Review of DFD Documents

This was a review of budgets, DFD Administrative Regulations, DFD Standard Operating Guides, and other documents, including the “Read File,” located on the DFD Intranet. I also obtained from Larry Budreau, the Town of Derry’s Human Resource Director, all documents pertaining to employee evaluations used by other town departments – public works, support staff, police, and senior staff.

Results

Research Questions

1. *What are the goals of the Derry Fire Department, and do the employee's understand them?*

The survey showed that most Derry Firefighters believe they have a limited knowledge and understanding of Department goals (questions #2 and #6), but feel that the goals have only marginal impact on evaluations (question #12). Furthermore, they stated they have had only limited training on Department goals (question #14). The overall results of this survey dimension showed that Derry Firefighters have sub-par, 2.9 out of 5, knowledge and understanding of the Department's goals.

The review of documents showed that there are no published goals or a value statement for the Derry Fire Department. There is a brief mission statement, which is used as a preamble to the Administrative Regulations, (see Appendix D: *Mission Statement*).

On July 1, 2005, the Derry and East Derry Fire Departments merged. The mission statement was written in the mid-1990s; and has not been updated to reflect the new organization and its structure.

Review of training records showed that the Derry Fire Department has done no training on the mission or goals of the department for at least the past four years. Furthermore, I was responsible for helping to develop and review the last promotional exam for Lieutenants, Captains, and Battalion Chiefs, given in the fall of 2005. The mission statement or goals of the department were not part of this exam.

During the post-survey focus group, I asked participants what are the department goals? The response varied from “save lives, protect the environment, save property;” to “become NFPA 1500 compliant by FY 2008;” and to “operate the best EMS system.” When I asked does the department actually have goals? One participant stated, “We have to, all departments’ do.” When asked to locate a document that shows the goals of the department, none of the participants could find it.

2. *How are employee evaluations done by other public and private entities?*

The most common forms of employee evaluations are variations on the traditional graphic rating scales, behaviorally anchored rating scales, management by objective, and progress against goals. Thomas and Bretz (1994) support these findings.

The Town of Derry uses several different traditional employee evaluation forms and processes. All evaluations are annual; they are all variations on the graphic rating scale with global narrative. Senior support staff, at the end of their evaluation, have a space for their supervisor (a department head) to give them a merit raise of up to 4%. There is no process to determine what the appropriate merit raise is, and it is dependant upon the supervisor to determine the appropriate amount. The forms indicate no linking of the employee evaluation with the mission, goals, and values of their department or the town, (see Appendix E: *Derry Support Staff Evaluation*).

Review of fire service literature, personal interviews, and TRADE showed that the majority of the fire services rely on traditional forms of annual employee evaluations. Both Manchester and Salem Fire Departments use generic systems that are used town wide. Local human resources staff or a consultant developed these systems. The Fire Department had no input into the design of the system.

Salem Fire Department (SFD) uses a system similar to the Derry Fire Department's; it is a combination trait-based graphic rating scale and global essay. According to Chief Parisi, it has no impact on wages or benefits and only "minimal" on promotions. He states their system is mostly for long-term tracking of potential disciplinary issues. Since the SFD employee evaluation is generic to the 250 Town of Salem Employees, employees are not rated against the Department's missions, goals, or values. Finally, members of the Salem Fire Department received no training on employee evaluations.

The Manchester Fire Department (MFD) uses a two-step process, with company officers evaluating fire fighters. The first part is the employee develops a performance plan for the year. The second is the annual review. During the annual review, the employee's progress with their performance plan is evaluated, and then they are rated on behavioral traits. The employee evaluation form is a structured narrative based on those traits, (see Appendix F: *City of Manchester – Employee Performance Appraisal*). A good review is required for the employee to receive a merit raise. Chief Campasano felt that employee evaluations could be an excellent tool if used correctly, but in Manchester, "because of merit increases, no one ever gets a bad review." He also stated, other than being shown the forms, employees have not been trained on employee evaluation systems. He further expanded on this and said that other than "reading a few odd pages here-and-there," there is very little training available to the company officer on employee evaluations. This was confirmed by the post-survey focus group.

The literature review did not give any examples of companies that do not do evaluations specifically because of TQM. However, two career fire departments in our

area do not do employee evaluations. Captain Roger, of Londonderry Fire Department stated that employee evaluations were negotiated out of the CBA over ten years ago. He stated when they used to do employee evaluations that “it was bad.” Evaluations were not objective, and personalities played a big role. He felt that evaluations could be a good tool, if done objectively and personalities were removed from the process.

The Nashua Fire Department (NFD) does not do employee evaluations. Deputy Leuci stated the NFD has a very strong union that will not allow employee evaluations. He feels they are necessary. At the NFD, since employees were not evaluated against performance goals, poor performance frequently went uncorrected until it became a disciplinary problem.

There were several examples that combined the traditional approach of employee evaluations with the principles of TQM, see Cardy and Carson (1996), Cederblom and Pernerl (2002), and Haines, St. Onge, and Marcoux, (2004). Chief Newbury provided me with the forms used by the Prospect Heights Fire Protection District (see Appendix G), and the City of Santa Cruz Fire Department (see Appendix H). By comparing these forms to the principles on Table 1, these systems have adopted some of the principles of TQM.

None of the fire service sources identified in the literature review, through personal interviews, or TRADE, link their evaluation systems to the mission, goals, and values of their department and all evaluations are only annual.

3. What are the elements of an effective employee evaluation process?

In summary, combining the principles of TQM with a structured system of documentation, leads to a successful employee evaluation process. An effective process

helps employees develop and maintain attitudes that promote team development and individual growth through a commitment to safety, innovation, leadership, quality; and the mission, goals, and values of the organization. It requires a system that encourages common goal setting between individuals, supervisors, and among teams. The system must focus on effective and regular feedback between the supervisor and employees. The supervisor needs to be a coach, facilitator, and partner with the employees. The organization, supervisors, and employees must take a systems approach to prevent errors; and when errors occur to view that as an opportunity that leads to success. The performance assessment process must be evolutionary, evolving as the organization evolves, and reflect the actual requirements of the job. Finally, no employee evaluation process can be effective unless there is regular and ongoing training.

This applied research project uses the action method of research; therefore, please refer to Appendices I to N. These appendices contain extensive materials and forms that outlines an effective employee evaluation process.

4. What are the legal requirements of an employee evaluation process?

According to Attorney Jake Krupski, there are no legal requirements to have an employee evaluation process. The Derry firefighters' and the supervisors' collective bargaining agreements have no requirements regarding, nor do they mention employee evaluations. Although firefighters and supervisors are members of International Association of Fire Fighters Local 4392, they are in separate bargaining units. Therefore, the supervisory exclusion of New Hampshire RSA 273-A:8, does not apply.

Under equal opportunity employment law, certain information cannot be included in an employee evaluation. This information includes age, sex, race, marital

status, family status e.g. does the employee have or expect to have children, religion, sexual orientation, or disability status.

The following items are not legal requirements but are recommended to help avoid legal action: training on the system, have the evaluation reviewed prior to meeting with the employee, provide an appeal process, and have the employee sign the form – even if they disagree with it.

The case of Professional Firefighters of Hanover, Local 3288 v. Town of Hanover, New Hampshire illustrated the legal ramifications of leniency bias in an employee evaluation.

5. How can an employee evaluation process improve the teamwork of a company?

The research shows that most traditional forms of employee evaluation do not contribute to teamwork because they focus on the individual, and on retroactively identify problems with the individual. Even though management by objective and progress towards goals refer to the development of group goals, at the end only individual's progress towards the goals are measured.

The following skills were identified as improving teamwork: listening, questioning, persuading, respecting, helping, sharing, and participating. The focus groups determined that an evaluation process that demonstrates regular communication, working together to achieve common goals, and being allowed the freedom to commit errors and then as a group fix them, are needed to for teamwork.

This applied research project uses the action method of research; therefore, please refer to Appendices I to N. These appendices contain extensive materials and forms that outlines how a performance assessment process can improve the teamwork of a company.

Survey

Appendix C contains the survey questions and results. The survey was interesting in that the opinions of the firefighters and the supervisors was almost identical, they shared equally low opinion of the current employee evaluation systems *see figures 6 and 7*. *Figure 8* shows the responses to the supervisory questions. It shows that supervisors spend on average, less than four hours per year on employee evaluations; this coincides with the frequency of follow-up with individual goals. Furthermore, the perceived fairness of the evaluation process, overall satisfaction with the evaluation process, the perceived objectivity of evaluations are all within .25 of each other, with the highest dimension being 2.75.

Pre-Survey Focus Group

1. What do you think of our employee evaluations? The verbal replies were all negative; the biggest complaints centered on the graphic rating scale and the numerical total. Neither the supervisors, nor the firefighters felt this was objective or beneficial. They felt your score depended solely on who rated you, and not on actual performance.

2. How much effort do you put into employee evaluations? The comments varied on this, one firefighter felt they were not that important so why should he put any effort into it, while most replied “a few hours.”

3. What should be included in employee evaluations? Universally, the group felt that employee evaluations should reflect what they actually do and not on intangibles such as “perseverance.” One member felt, that like the military evaluations, there should be a section on promotability. This firefighter stated, “The biggest goal for me is to get promoted, I want to know what I need to do to achieve that.” He also added a concern that he felt there were some firefighters who could do “really well on a test, but be idiots as an officer.”

4. What experience do you have with employee evaluations outside the DFD? Most members had little experience outside the Derry Fire Department. One member had been a supervisor elsewhere and was disdainful of that system, stating, “It’s pretty much the same as here, it’s one of those meaningless things you had to do throughout the year.” Two members had military experience, and they were both favorable towards the military process. One who was an infantry officer stated that he had “forty hours of training just on evaluations.”

5. Do you think it is worthwhile that we even do evaluations? There was universal agreement in this. The group felt that a well-structured system would be of great benefit. All the firefighter stated they appreciate feedback on their performance from their officers.

Post-Survey Focus Group

I asked this group two questions, the results of the first question were included in the research questions section. The second question, how did you get training on employee evaluations? Several stated their training occurred when the evaluation system was discussed during recruit orientation or during the merger. When asked how much

time was spent on evaluations during that training, they replied about “twenty or so minutes.” Another replied his officer spent about a half hour reviewing the system with him, after rejecting his self-evaluation due to poor quality. Several members of the group had recently completed Company Officer School at the New Hampshire Fire Academy. I asked them how much training they had received on employee evaluations during that school; one replied “not much.” The other stated it was covered in one of the projects, when they had to collect and describe all the forms used by the department.

Focus Group

1. Would this performance assessment process improve teamwork? The group particularly liked the development/task process, and felt it could get everyone working together. One firefighter stated we do work together and as a team, this would just document that fact. One firefighter stated, “I don’t have a relationship with my supervisor, and only with my Chief if he thinks there is a problem. Anything that improves communication between us would be a good thing.”
2. Is this system easy to use, is there too much paperwork? The opinions on this were favorable. One firefighter particularly liked the quarterly evaluations. He stated, “There is no reason for me to have any problems documented in my annual evaluation, they should all have been picked up and corrected during the quarterly evaluations.” A company officer liked the ability to use Outlook Task as a development/task form. He stated, “Have been using that [Outlook Task] for a while, and find it to be very helpful.”
3. Do you like having the mission, goals, and values of the Derry Fire Department linked to evaluations? The replies were yes. One who had military

experience says they are linked in his evaluation. That goals give a sense that you belong and are important to the organization.

One of the items that came from this focus group is that the original draft of the Annual Performance Assessment did not mention anything to do with fire prevention or inspections. If not discovered, it would have been a significant oversight.

Discussion

The results of the research represent three distinct choices:

1. Stay the course, the current Derry Fire Department employee evaluation system is a common one, and supported by research and past practice as illustrated by McGregor (2005), Mund (2002), and Prendergast (2000).
2. Press the “easy button,” and take the advice of Deming (1982), Bowman (1994), and Rasch (2004), and recommend that the DFD abandon employee evaluations altogether. Believing that the best way to have firefighter evaluation system that fosters team development and individual growth is to have none at all.
3. Option three, is to straddle the razors edge between traditional employee evaluations and TQM. Taking cue from Cederblom and Pernerl (2002), to focus on a system that relies on regular structured coaching and feedback between supervisors and employees; that focuses on a process to develop and enhance skills; that requires accountability and training at all levels; and most important integrates into the department’s strategic plan by focusing on the department’s mission, goals, and values.

The research supports option three, because:

Performance management systems components can be designed in a way that is compatible with quality. Thus, rather than discard performance appraisals as quality scholars would advise, quality-driven organizations seemingly adapt their performance management system components to the people requirements of a quality strategy. Doing this, our finding suggest, may improve performance management system effectiveness (Haines, St-Onge, & Marcoux, 2004, p. 158).

Fourteen Points of a TQM Based Performance Assessment

The design characteristics of a quality, performance assessment system are very simple.

1. Use the mission, goals, and values of the Derry Fire Department as guides whenever assessing performance, assigning tasks, or when giving feedback (Woodford & Maes, 2002).
2. The department mission, goals, values and the expectations of the supervisor should be discussed when an employee is hired, promoted, transferred, given a new assignment, and on a regular basis.
3. Regular review of the mission, goals, and values of the Derry Fire Department, does two things. It reminds all employees and gets them to think about what is important to both the department and the communities it serves. Second, the mission, goals, and values are not static, they are evolutionary, by discussing them on a regular basis, we allow them to evolve as the department and community changes, (Austerman, 1999; and Wallace, 1998)

4. As suggested by Bowman (1994), that supervisors and employees build and nurture trust by developing a partnership that focuses on a sincere desire to improve and help each other to succeed; and to as Allender (1995) says, for the group to develop profound knowledge and through daily motivation have pride in the quality of their work.
5. Follow Deming's (1982) advice on feedback and judgment. Focus on feedback, not judgment. Feedback is the back and forth sharing of communication for the purpose of learning. It is the supervisor informing the employee what is expected of them and how they are performing. It is the employee communicating back to the supervisor their needs, how the organization can help them, and their ideas on how to improve not only themselves, but also their company, battalion, or the department.
6. Judgment is the formal utterance of an authoritative opinion. It is an exercise of power, to which people often react defensively. When judgment occurs, learning often ceases, and conflict ensues. "A leader, instead of being a judge, will be a colleague, counseling and leading people on a day-to-day basis, learning from them and with them," (Deming, 1982, p. 117).
7. Employees need feedback and validation. Feedback does not always have to be positive or negative. As Shepard (2005) said, it does have to be helpful, which is the difference between criticism and constructive criticism. It is also the difference between constructive praise and mere fluff.
8. Employees are the priority, not equipment. In a year, a firefighter may spend forty or more hours performing apparatus checks, while a supervisor will

spend only a few hours on an employee evaluation. This needs to stop.

Personnel are the most important component of the Derry Fire Department.

Our supervisors need to make the performance assessment process a priority, and set aside the time to effectively coach employees.

9. That the supervisors and employees work together to develop a proper balance between group and individual performance, because as Riggio and Cole (1992) found, firefighting is a unique combination of individual and group tasks. A successful group does not mean that each member is also a success; conversely, successful people do not always form an effective group. True teamwork is a combination of individual and group success.
10. No person is an island, all goals, including those that are specific to an individual will require teamwork to complete. Furthermore, according to Shaw (2004) effective goals follow the SMART criteria of: Specific, Measurable, Achievable, Results-based, and Time Specific.
11. Cederblom and Pemrl (2002) stated that a key to the success of a performance assessment process that follows TQM is training. Therefore, the DFD needs to train all employees on the performance assessment process, on leadership, principles, and coaching, and updates this training on a periodic basis.
12. Adaptive change must be part of the performance process. It is easy to order someone to wear their seatbelt, or else! Unless that employee believes that wearing seatbelts is good, then when alone (in a staff or personal vehicle), or when they believe that seatbelts prevent them from getting dressed in PPE and SCBA while enroute to a call, they may not wear a seatbelt.

“Adaptive change requires experiments, new discoveries, and adjustments from numerous places in the organization. Without learning new ways – *changing attitudes, values, and behaviors* – people cannot make the adaptive leap necessary to make a long lasting change”, (Heifetz & Linsky, 2002, p. 13).

13. A good performance process tries to limit subjectivity; hence, the reliance on standards, but a good performance process should not eliminate subjectivity. As Grote (2000) states, we pay supervisors for the quality of their opinions and the good judgments they make. Though employees may want objective information, they also want their supervisor opinion.
14. Finally, the organization, the supervisor, and the employee should focus on daily development, not on annual development. Bjornlund (1997) describes daily development as:

It is the supervisor’s responsibility to analyze employee potential in light of the current and future needs of the department. To accomplish this, you must show a sincere interest in an employee’s career goals and their relationship to the mission, goals, and values of the department, at progress meetings or in informal conversations. The more you know about the goals and aspirations of your employees, the better able you’ll be to provide opportunities for growth and development.

Essentially, the ongoing development of your employees requires you to find ways for them to accommodate their acquired

skills and to pursue and capitalize on any related but unfulfilled interests. If an employee has expressed interest in building a tasks that require that skill. A keen interest and willingness to learn are often all that are needed for an employee to show excellence almost overnight (pp. 115-116)

Legal Requirements of an Effective Performance Assessment

As Lyster and Arthur (2007) pointed out any information that is not vital to the employee's work performance cannot be included. These items are often referred to as seniority and attribution biases and include, age, race, gender, marital status, etc. According to Shepard (2005), inclusion of these items may lead to accusations of discrimination or favoritism, and expose the employer to violations of Age Discrimination in Employment Act, Americans with Disabilities Act, Pregnancy Discrimination Act, and Title VII of the Civil Rights Act of 1964. According to Lyster and Arthur (2007), Shepard (2005) and Bjornlund (1994), there are several simple steps that will reduce an employer's liability.

1. Train all employees and supervisors on the performance assessment process. During training inform everyone on the causes and effects of common rating errors/biases, and in particular, attribution biases.
2. Have the performance assessment reviewed by a *senior rater* before the rater and employee discuss the final assessment. This review will provide a system of checks and balances to prevent the occurrence of rating errors and biases, and helps ensure that the assessment complies with established policies and standards.

3. Avoid vague comments, stick to factual ones based on observations. The management review will also assist with this.
4. Have the employee sign the form, even if they disagree with it. The signature shows that the assessment occurred and that the employee understands the ramifications of the assessment.
5. Have an appeal process. All the military performance assessment systems have extensively documented appeal process, e.g. see United States Army (2006a).

Finally, it is important for all parties to be honest in the evaluation. A supervisor does an employee disservice by being too lenient or too harsh in an assessment. As Shepard (2007) described, avoiding negative comments does a disservice to the employee. Often the short-term pain of negative comments may lead to long-term growth for all. “The reality is that giving bad news in a performance evaluation prevents the employee from having to hear bad news in a progressive discipline process” (Shepard, 2005, pp. 5-6). Consider the case of the *Professional Firefighters of Hanover, Local 3288 v. Town of Hanover, New Hampshire*. If the subject’s supervisor had given him an honest evaluation, then the whole termination may have been avoidable because the subject may have been able to change their behavior.

Bottom-up Performance Appraisal

While not strictly part of this applied research project, the idea of the bottom-up performance appraisal developed by Hymes (1996), and Riggio and Cole (1992) was an important find in the literature review. This is a tool to evaluate supervisors, therefore does not apply to a performance assessment process for firefighters, nor does it apply to

Lieutenants since they do not supervise sufficient numbers for the process to remain confidential.

However, this would be an excellent tool for Battalion Chiefs, Captains, and Lieutenants. This concept is similar to the Leadership Profile Tool that was done as part of the Executive Fire Officer Program at the National Fire Academy. I participated in that process and found it to be beneficial.

The bottom-up appraisal should be a *component* of a total performance assessment process. It does not provide the 1:1 feedback that occurs between a subordinate and their supervisor, nor does it develop goals for the subordinate to meet.

Is the Current DFD Employee Evaluation System Effective?

No. The current DFD employee evaluation form is combination graphic rating scale and global essay, and according to Solie (2002), its fairness and accuracy is suspect, it is subjective and does not related to actual work behaviors. Solie's (2002) opinions were affirmed by the focus groups, which questioned the validity of the graphic rating scale; by the survey, which revealed nothing positive about the current system; and by telephone interviews with other fire department supervisors, which showed they all lacked confidence in their similar systems.

The literature review showed nothing positive about this system and described it easy to design, easy to use, and so prone to error as to be ineffective, see Solie (2002). This is backed up by Bjornlund (1997) writing for the International City/County Management Association, who described graphic rating scales (also known as trait-based scales) as "unreliable" (p. 73).

Surprisingly, the only literature that supported this system, e.g. Mund (2002) and Prendergast (2000), was from the fire service. I can only attribute this to the fact the systems based on graphic rating scales are easy and simple. “As only unionized personnel are to be evaluated within this program (non-union management personnel are evaluated under an existing MBO program), it [employee evaluations] will be most readily accepted by use of simple graphic ratings forms and checklists” (Prendergast, 2000, p. 28).

Who wants to carry a saw into a fire that is easy and simple to operate, but so unreliable as to be ineffective?

On Goals

Linking the Derry Fire Department’s mission, goals, and values to the employee evaluation process is essential. It is a basic precept of TQM as illustrated on Table #1, and by Woodford and Maes (2002),

Employee evaluations subsequently are designed to support and advance the goals set for the organization as a whole. The employee evaluation process can be used to ensure that each employee understands his or her individual role in the strategic plan as well as ensure that each individual’s work is moving the organization towards its overall objectives (p. 3)

Austerman (1999) and Osborne (1991) wrote that values motivate employees to improve organizational performance by providing them with a global vision of the organization. United States Army (2006a) includes Army Values in their evaluation system because they maintain public trust; develop quality leadership and management skills.

Wallace (1998) stated, “The ‘value system’ is an enduring organization of standards or principles that represents the preferred conduct or operational results of the department” (§19). Therefore, an effective tool to help measure preferred conduct and an operational result is the performance assessment.

The results of the research showed that Derry firefighters believed the department had established goals, when in fact there were none. Furthermore, the research showed that the department has no value statement, and that its mission statement is outdated. So why ask research question one: *what are the goals of the Derry Fire Department, and do the employee's understand them?*

That was the concern Chief John York (personal email, June 28, 2006), when he approved my applied research project. He felt, “Question one is quite broad and far reaching. It is probably a research project in and of itself. What is the link between question one and your project other than department goals are always good to know?”

This paper is about action research – instituting a new performance assessment process at the Derry Fire Department. This process is radically different from what is used by anything in Derry, the surrounding departments, or the fire service as a whole. To initiate this new process will require adaptive change at the Derry Fire Department.

Heifetz and Linsky (2002) discussed adaptive change as new experiments, new discoveries, and adjustments from numerous places from within and from the outside of the organization. The first step to any change is to identify a problem. Using Deming (1982) the problem is now an opportunity for leadership and teamwork to find a quality solution. I am using this research question as tool to facilitate adaptive change. This question does two things, it identified a problem that is now an opportunity for leadership

and teamwork to update the mission statement, develop goals and values. Second, it helped show the importance of linking mission, goals, and values, to the performance assessment.

Currently, the Derry Fire Department is at the epicenter of a hostile political climate, one that may significantly affect our budget and operations. In part, this is due to the recent merger of the Derry and East Derry Fire Departments. Many who are hostile towards the department, actively campaigned against the merger, and now are campaigning to unseat the councilors who supported the merger.

Wallace (1998) states strategic planning includes developing a mission statement, goals, and values for an organization. By opening up this process to include, as Wren (1995) suggests, to citizen advisors, then these citizens develop a sense of ownership of the Derry Fire Department. This group may help reverse the effects of the current hostile political climate.

What does this have to do with a performance assessment process? By developing the mission, goals, and values with the assistance of the community; then when a firefighter is assessed in comparison to them, they are actually assessed according to the needs of the community to which they serve.

Recommendations

Appendix I contains the memo to the Chief on the performance assessment process, Appendix J contains the manual on the performance assessment process, while Appendices K to N contain blanks of all the forms. Integrating the mission statement, goals, and values of the Derry Fire Department, is essential to that process. The Derry

Fire Department needs to write a new mission statement, develop and publish department goals, and establish a set of values, before adopting the new performance assessment process.

During the January 2007 staff meeting, we decided to stop seeking fire accreditation due to budget and overtime concerns caused by the current hostile political environment. This should not stop us from developing a strategic plan, a plan that includes as, Wallace (1998) suggests, a mission statement, goals, and values. We need to citizens, including those who are currently hostile towards us, to be involved in this process. Their involvement will give them a sense of ownership, and I hope motivate them to support the Derry Fire Department. This may not help us in the current budget cycle, but could affect future budgets and operations.

The proposed performance assessment process is a radical change from what is currently used. For it to be effective, everyone must believe in it and this will require adaptive change. To effect this change I recommend we do the following:

1. Re-invigorate our leadership training along the principles of total quality management. TQM is an approach that focuses on prevention of errors, rather than on the detection of errors. In other words, TQM is the management version of fire prevention. For the first step in this process, I have hired Howard Cross, a management consultant and Executive Fire Officer Instructor at the National Fire Academy. He will give a presentation to each shift on TQM, leadership, and problem solving, (see Appendix O: *Howard Cross*).

2. Treat my proposed performance assessment process as a draft. Train all members on it, and allow them to effect change in the process, this will create ownership and support.
3. One year after initiating the new system, evaluate the effectiveness and usability of it through a combination of focus groups and a survey.
4. For the purpose of the applied research project, I had to develop a performance assessment process for firefighters. However, I recommend we adapt this process, using our job descriptions, to include all department employees.

As part of the performance assessment process for Battalion Chiefs, Captains, and Directors, I recommend we develop a bottom-up performance appraisal similar to that as described on pages 30 and 31 by Hymes (1996), and Riggio and Cole (1992). Include in this bottom-up assessment, the subordinates opinions on how well their superiors carry out the mission, goals and values of the Derry Fire Department.

Finally, we should stop doing evaluations, until we are ready to institute the new performance assessment. My motivations on this recommendation can be questioned. I am the Battalion Chief who is most frequently criticized for being very tardy on completing employee evaluations. I believe our current evaluation system is not effective and may be detrimental to the organization. The current DFD employee evaluation form is combination graphic rating scale and global essay, whose fairness, reliability, and accuracy is suspect. Furthermore, it is subjective and does not relate to actual work behaviors. These opinions are backed-up by the research, including the survey that is summarized in Figures 6, 7, and 8.

The concern is that we need the annual employee evaluation to document potential disciplinary issues. If we are relying on the annual employee evaluation to document problems, then we have failed as leaders. We have failed for two reasons, one we let the problem fester until the annual evaluation and did not try to correct it earlier; and two we did not appropriately document issues when they actually occurred.

In addition, I doubt if our current evaluation system is legally defensible. None of us has received any training on how to do employee evaluations, and the validity of the process itself is difficult, if not impossible, to defend.

In the meantime, what do we use to replace our evaluations? We use leadership, coaching, accountability, and common goal setting.

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Table 1

Comparison of Traditional Approaches of Evaluations to Total Quality Management

Criteria	Traditional Evaluations	Total Quality Management
Guiding Value	Attribution to individual	Attribution to System
Information Basis	Individual behavior; requiring conformance to the system, detection of employee weaknesses, top-down flow of information	Work group participation; with continuous improvement of the system to prevent errors & develop employees, bottom-up flow of information
Rating Scale	Fiver or more scale	Three scale categories
Purpose	Control, post-fact documentation of performance, and to allocate merit pay	Employee and supervisory development and problem solving capabilities, while working within a strategic plan
Goal Setting	Individual Goals	To support group and organizational goals
Supervisory role	Supervisor as referee and judge	Supervisor as a coach and facilitator, peers as colleagues, clients as customers
Leadership practices	Directive based, evaluative, and encouraging of competition	Facilitative, coaching, encouraging cooperation and teamwork
Appraisal frequency	Occasional	Frequent
Degree of formality	High	Low
Reward practices	Oriented to the individual includes merit pay, and promotions	Oriented to the group and are intrinsic in nature

Note. Adapted from Bowman (2002) p. 132

Table 2

Research Questions and Procedures

Research Question	Procedures used
1. What are the goals of the Derry Fire Department, and do the employee's understand them?	Review of DFD documents Survey Pre and post-survey focus group
2. How are employee evaluations done by other public and private entities?	Literature review TRADE Telephone Interviews
3. What are the elements of an effective employee evaluation process?	Literature review TRADE All focus groups
4. What are the legal requirements of an employee evaluation process?	Literature review Phone Interviews
5. How can an employee evaluation process improve the teamwork of a company?	Literature review All focus groups

Figure 1

Marine Corps Modified BARS with Focused Narrative

A	B	C	D	E	F	G	H
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. EFFECTIVENESS UNDER STRESS. Thinking, functioning and leading effectively under conditions of physical and/or mental pressure. Maintaining composure appropriate for the situation, while displaying steady purpose of action, enabling one to inspire others while continuing to lead under adverse conditions. Physical and emotional strength, resilience and endurance are elements.							
ADV	Exhibits discipline and stability under pressure. Judgment and effective problem-solving skills are evident.	Consistently demonstrates maturity, mental agility and willpower during periods of adversity. Provides order to chaos through the application of intuition, problem-solving skills, and leadership. Composure reassures others.			Demonstrates seldom-matched presence of mind under the most demanding circumstances. Stabilizes any situation through the resolute and timely application of direction, focus and personal presence.		N/O
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. INITIATIVE. Action in the absence of specific direction. Seeing what needs to be done and acting without prompting. The instinct to begin a task and follow through energetically on one's own accord. Being creative, proactive and decisive. Transforming opportunity into action.							
ADV	Demonstrates willingness to take action in the absence of specific direction. Acts commensurate with grade, training and experience.	Self-motivated and action-oriented. Foresight and energy consistently transform opportunity into action. Develops and pursues creative, innovative solutions. Acts without prompting. Self-starter.			Highly motivated and proactive. Displays exceptional awareness of surroundings and environment. Uncanny ability to anticipate mission requirements and quickly formulate original, far-reaching solutions. Always takes decisive, effective action.		N/O
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
JUSTIFICATION:							
<div style="height: 100px; border: 1px solid black;"></div>							
NAVMC 10835B (Rev. 1-01) (WN 3.1)						PAGE 2 OF 5	

Note. A is lowest rating (adverse) while G is highest rating, and H indicates not applicable.

From. "PES Winfe 3.1", United States Marine Corps (2007b)

Figure 3

Part IV – Army Values

PART IV - ARMY VALUES/ATTRIBUTES/SKILLS/ACTIONS (Rater)			
a. ARMY VALUES. Check either "YES" or "NO". (Comments are mandatory for "No" entries; optional for "Yes" entries.)		YES	NO
<div>V A L U E S</div> <div>Loyalty Duty Respect Selfless-Service</div> <div>Honor Integrity Personal Courage</div>	1. LOYALTY: Bears true faith and allegiance to the U. S. Constitution, the Army, the unit, and other soldiers.		
	2. DUTY: Fulfills their obligations.		
	3. RESPECT/EO/EEO: Treats people as they should be treated.		
	4. SELFLESS-SERVICE: Puts the welfare of the nation, the Army, and subordinates before their own.		
	5. HONOR: Lives up to all the Army values.		
	6. INTEGRITY: Does what is right - legally and morally.		
	7. PERSONAL COURAGE: Faces fear, danger, or adversity (physical and moral).		
	Bullet comments		

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PREVIOUS EDITIONS ARE OBSOLETE.

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From. “DA form 2166-8: NCO Evaluation Report”, United States Army. (2006b).

Figure 4

Army Rating of NCO Responsibilities

<p>d. LEADERSHIP</p> <ul style="list-style-type: none">o Mission firsto Genuine concern for soldierso Instilling the spirit to achieve and wino Setting the example; Be, Know, Do <p>EXCELLENCE (Exceeds std)</p> <input type="checkbox"/> <p>SUCCESS (Meets std)</p> <input type="checkbox"/> <p>NEEDS IMPROVEMENT (Some) (Much)</p> <input type="checkbox"/> <input type="checkbox"/>	
<p>e. TRAINING</p> <ul style="list-style-type: none">o Individual and teamo Mission focused; performance orientedo Teaching soldiers how; common tasks, duty-related skillso Sharing knowledge and experience to fight, survive and win <p>EXCELLENCE (Exceeds std)</p> <input type="checkbox"/> <p>SUCCESS (Meets std)</p> <input type="checkbox"/> <p>NEEDS IMPROVEMENT (Some) (Much)</p> <input type="checkbox"/> <input type="checkbox"/>	
<p>f. RESPONSIBILITY & ACCOUNTABILITY</p> <ul style="list-style-type: none">o Care and maintenance of equipment/facilitieso Soldier and equipment safetyo Conservation of supplies and fundso Encouraging soldiers to learn and growo Responsible for good, bad, right & wrong <p>EXCELLENCE (Exceeds std)</p> <input type="checkbox"/> <p>SUCCESS (Meets std)</p> <input type="checkbox"/> <p>NEEDS IMPROVEMENT (Some) (Much)</p> <input type="checkbox"/> <input type="checkbox"/>	

From. “DA form 2166-8: NCO Evaluation Report”, United States Army. (2006b).

Figure 5

Raw Data from Survey of Derry Fire Supervisors

Survey	Questions: Firefighters and Supervisors																Supervisors only			
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	1S	2S	3S	4S
A.	3	3	3	4	3	3	2	3	1	2	3	3	3	2	2	1	2	3	4	4
B.	4	4	1	4	2	3	2	3	1	3	2	1	2	2	2	1	2	2	2	3
C.	2	4	2	1	3	4	4	3	4	4	3	3	2	4	4	2	1	3	3	2
D.	4	4	2	4	2	4	3	4	2	3	3	4	4	2	3	1	2	4	3	3
E.	2	3	1	2	2	3	2	2	4	3	2	2	2	3	1	1	2	2	2	2
F.	1	4	1	2	2	4	3	3	4	2	2	3	3	3	2	1	2	3	3	2
G.	2	3	1	2	2	3	2	2	2	1	4	2	4	2	4	1	3	1	1	3
H.	4	1	3	4	2	2	4	4	4	4	2	2	4	2	4	4	3	4	4	2
I.	4	5	3	3	4	5	2	3	1	2	2	2	3	2	2	1	2	3	3	1
J.	4	4	2	3	3	4	3	4	2	3	3	2	3	2	2	3	3	3	4	2
K.	2	2	3	3	3	2	2	3	3	2	3	3	2	3	2	1	1	3	2	1
L.	2	3	2	1	4	3	3	2	4	2	4	3	2	3	1	1	2	2	3	2
M.	5	2	2	2	3	2	3	2	2	3	2	3	2	3	4	1	2	2	3	2
N.	1	4	1	3	5	3	2	2	3	3	2	4	1	2	2	1	2	2	3	3
O.	2	3	2	3	2	5	3	3	2	4	2	2	3	2	4	1	3	3	3	2
P.	3	2	1	3	1	2	1	2	2	1	3	2	2	2	1	1	2	3	2	1
Q.	4	4	2	3	3	4	2	4	4	2	4	3	3	4	2	3	2	4	3	2
R.	2	3	3	3	2	3	1	2	3	3	2	2	2	2	3	1	3	3	2	2
S.	3	3	2	4	2	4	3	3	4	3	3	3	4	4	2	2	2	4	3	2

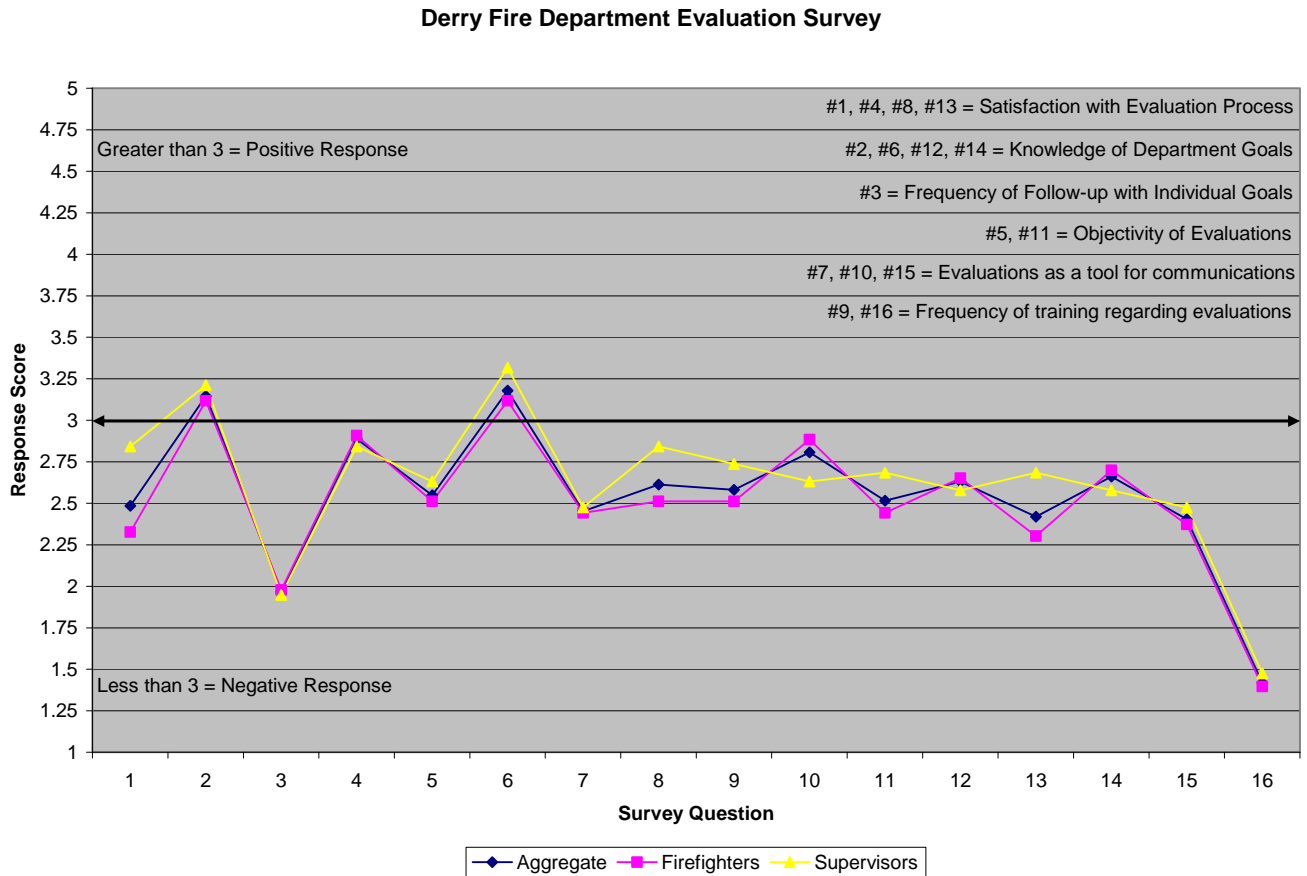
Average	2.84	3.21	1.95	2.84	2.63	3.32	2.47	2.84	2.74	2.63	2.68	2.58	2.68	2.58	2.47	1.47	2.16	2.84	2.79	2.16
Count 1	2	1	6	2	1	0	2	0	3	2	0	1	1	0	3	14	2	1	1	3
Count 2	7	3	8	4	9	4	8	7	6	6	9	8	8	11	9	2	12	5	5	11
Count 3	3	7	5	8	6	7	7	8	3	8	7	8	6	5	2	2	5	9	10	4
Count 4	6	7	0	5	2	6	2	4	7	3	3	2	4	3	5	1	0	4	3	1
Count 5	1	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19

% of 1's	10.5	5.26	31.6	10.5	5.26	0	10.5	0	15.8	10.5	0	5.26	5.26	0	15.8	73.7	10.5	5.26	5.26	15.8
% of 2's	36.8	15.8	42.1	21.1	47.4	21.1	42.1	36.8	31.6	31.6	47.4	42.1	42.1	57.9	47.4	10.5	63.2	26.3	26.3	57.9
% of 3's	15.8	36.8	26.3	42.1	31.6	36.8	36.8	42.1	15.8	42.1	36.8	42.1	31.6	26.3	10.5	10.5	26.3	47.4	52.6	21.1
% of 4's	31.6	36.8	0	26.3	10.5	31.6	10.5	21.1	36.8	15.8	15.8	10.5	21.1	15.8	26.3	5.26	0	21.1	15.8	5.26
% of 5's	5.26	5.26	0	0	5.26	10.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Note. Using the Likert response format, "1" is the most negative response, "3" is the neutral midpoint, and "5" is the most positive.

Figure 6

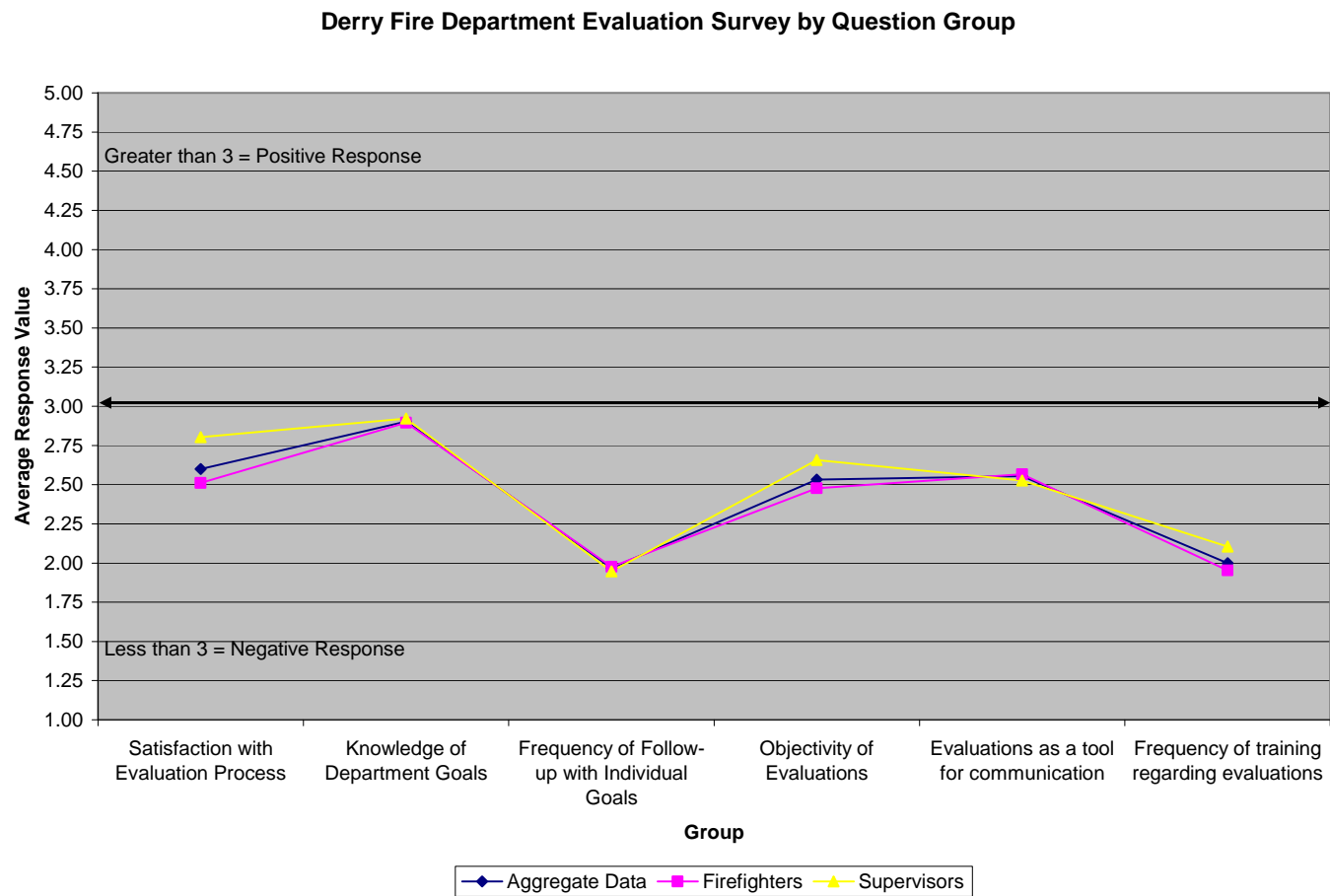
Average Responses for Questions #1 to 16



Note. Using the Likert response format, “1” is the most negative response, “3” is the neutral midpoint, and “5” is the most positive

Figure 7

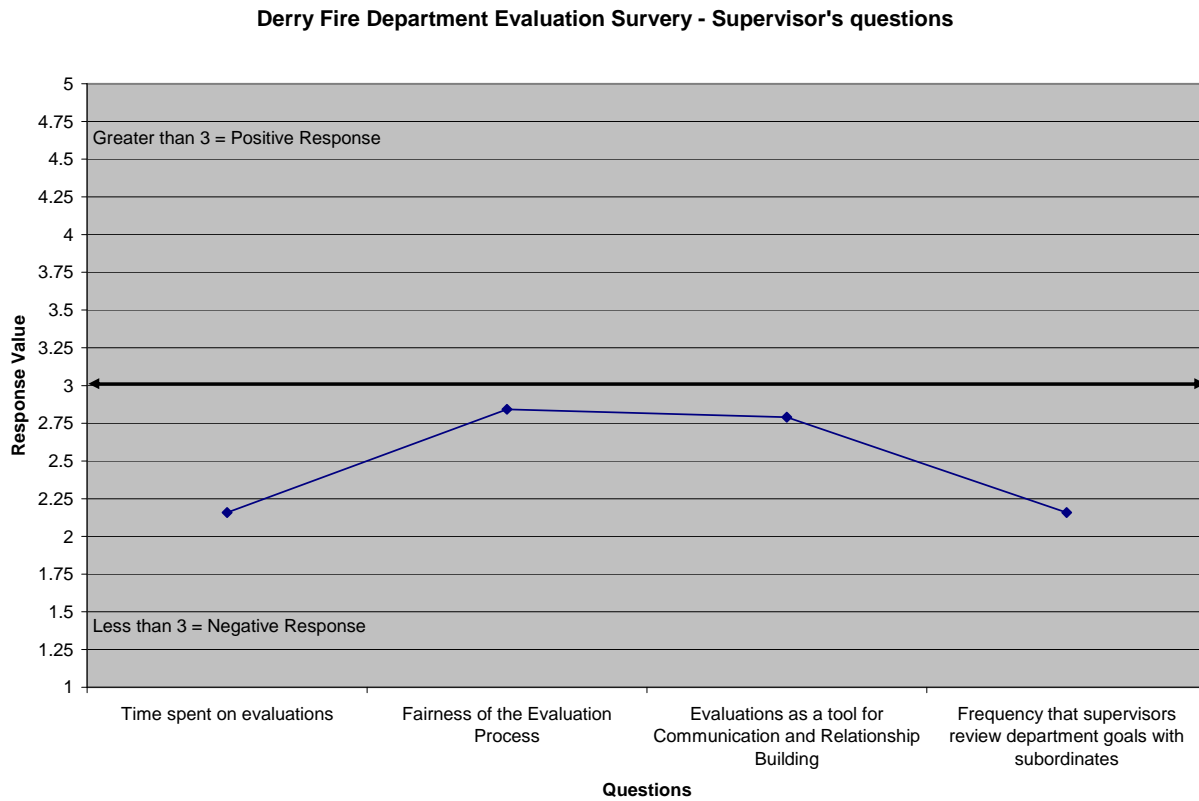
Average Responses for Questions #1 to16 – Grouped By Dimension



Note. Using the Likert response format, “1” is the most negative response, “3” is the neutral midpoint, and “5” is the most positive

Figure 8

Average Responses for Supervisor's Questions #1S to 4S – Grouped By Dimension



Note. Using the Likert response format, “1” is the most negative response, “3” is the neutral midpoint, and “5” is the most positive